



Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

## SAFETY DATA SHEET

# KODAK C41 RA LU Developer Repl. LORR Part A

### SECTION 1: IDENTIFICATION

#### 1.1. Product identifier

**Trade name:** KODAK C41 RA LU Developer Repl. LORR Part A  
Obtain special instructions before use.

**Product no.:** 5199013A

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**▼ Relevant identified uses of the substance or mixture:** Photo chemical for developing color negative film.

**Uses advised against :** None known.

#### 1.3. Details of the supplier of the safety data sheet

**Company and address:** **Photo Systems Inc.**  
7190 Huron River Drive  
MI 48130 Dexter  
USA  
Tel: +1 (734) 424-9625  
Fax: +1-734-580-2199  
www.photosys.com

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

**Manufacturer:** **Photo Systems Inc.**  
7190 Huron River Drive  
MI 48130 Dexter  
USA  
Tel: +1 (734) 424-9625  
Fax: +1-734-580-2199  
www.photosys.com

**Contact person:** Jake Bolt

**E-mail:** jake@photosys.com

**SDS date:** 7/8/2024

**SDS Version:** 3.0

**Date of previous version:** 6/10/2024 (3.0)

#### 1.4. Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® (trriage.webpoisoncontrol.org) to get specific guidance for your case  
See also section 4 "First aid measures".



## SECTION 2: HAZARD(S) IDENTIFICATION

### OSHA/HCS status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### 2.1. Classification of the substance or mixture

Met. Corr. 1; H290, May be corrosive to metals.

Acute Tox. 4; H302, Harmful if swallowed.

Skin Corr. 1; H314, Causes severe skin burns and eye damage.

Skin Irrit. 2; H315, Causes skin irritation.

Skin Sens. 1; H317, May cause an allergic skin reaction.

Eye Dam. 1; H318, Causes serious eye damage.

Eye Irrit. 2; H319, Causes serious eye irritation.

STOT SE 3; H335, May cause respiratory irritation.

#### 2.2. Label elements

##### Hazard pictogram(s):



##### Signal word:

Danger

##### Hazard statement(s):

May be corrosive to metals. (H290)

Harmful if swallowed. (H302)

Causes severe skin burns and eye damage. (H314)

Causes skin irritation. (H315)

May cause an allergic skin reaction. (H317)

Causes serious eye irritation. (H319)

May cause respiratory irritation. (H335)

##### Precautionary statement(s):

###### General:

If medical advice is needed, have product container or label at hand. (P101)

Keep out of reach of children. (P102)

###### Prevention:

Keep only in original packaging. (P234)

Do not breathe vapour/mist. (P260)

Do not eat, drink or smoke when using this product. (P270)

Use only outdoors or in a well-ventilated area. (P271)

Wear eye protection/protective gloves/protective clothing. (P280)

###### Response:

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. (P301+P312)

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. (P301+P330+P331)

IF ON SKIN: Wash with plenty of water and soap. (P302+P352)

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. (P303+P361+P353)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)



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Immediately call a POISON CENTER/doctor. (P310)  
 If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)  
 If eye irritation persists: Get medical advice/attention. (P337+P313)  
 Take off contaminated clothing and wash it before reuse. (P362+P364)  
 Absorb spillage to prevent material damage. (P390)

**Storage:** Store in a well-ventilated place. Keep container tightly closed. (P403+P233)  
 Store locked up. (P405)

**Disposal:** Dispose of contents/container in accordance with local regulation (P501)

**Additional labelling:** Not applicable.

**2.3. Other hazards**

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1. Substances**

Not applicable. This product is a mixture.

**3.2. Mixtures**

Product/substance	Identifiers	% w/w	Classification	Note
Potassium Carbonate Liquid 47%	CAS No.: 584-08-7	60-80%	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	
Potassium hydroxide 45%	CAS No.: 1310-58-3	5-10%	Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1, H314 Eye Dam. 1, H318	
Dissolvine H-40	CAS No.: 139-89-9	5-10%	Acute Tox. 4, H302 Eye Dam. 1, H318	
Disodium disulphite	CAS No.: 7681-57-4	3-5%	Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Dam. 1, H318	
sodium bromide	CAS No.: 7647-15-6	<1%		

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if



these are available.

## Other information

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## SECTION 4: FIRST-AID MEASURES

### 4.1. Description of first aid measures

#### General information:

If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).

Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

#### Inhalation:

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her. Get medical attention if symptoms occur.

#### Skin contact:

Immediately flush skin with plenty of water. Remove contaminated clothing. Get medical attention in if symptoms occur or in case of eczema or other skin disorders.

#### Eye contact:

If in eyes: Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Remove contact lenses. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

#### Ingestion:

Never give anything by mouth to an unconscious person. No NOT induce vomiting. Rinse mouth. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Get medical attention immediately.

#### Burns:

Not applicable.

### 4.2. Most important symptoms and effects, both acute and delayed

Severe eye irritation. Symptoms include stinging, tearing, redness, swelling, and blurred vision. Skin irritation may cause redness and pain.

Most important known symptoms and effects are described in the labeling (see Section 2.2 and in Section 11.)

### 4.3. Indication of any immediate medical attention and special treatment needed

IF exposed or concerned:

Get immediate medical advice/attention.

### Information to medics

Bring this safety data sheet or the label from this product.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding



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environment.

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

## **5.2. Special hazards arising from the substance or mixture**

In the event of fire, incompatible materials are strong oxidizing agents, metals, and acids.

Hazardous decomposition products are: Sulphur oxides, Nitrogen oxides (NO<sub>x</sub>), and Carbon oxides.

## **5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Help Line on 1-800-222-1222 (24/7) in order to obtain further advice.

No unusual fire or explosion hazards noted

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. Use personnel protective equipment and clothing recommended in Section 8.

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

Avoid inhalation of vapours from spilled material.

Contaminated areas may be slippery.

### **6.2. Environmental precautions**

Prevent product from entering drains, water courses or onto the ground.

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

### **6.3. Methods and material for containment and cleaning up**

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

### **6.4. Reference to other sections**

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

## **SECTION 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get this material in contact with eyes. Do not taste or swallow. Avoid contact with skin and clothing. Avoid prolonged exposure. When using, Do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling.

### **7.2. Conditions for safe storage, including any incompatibilities**

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Store in a container with a resistant inner liner.



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- Recommended storage material:** Keep only in original packaging.  
Container with a resistant inner liner.
- Storage temperature:** Dry, cool and well ventilated
- Incompatible materials:** Strong oxidizing agents  
Strong acids  
Contact with strong acids liberates sulphur dioxide.  
Metal

### 7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Occupational Exposure Limits

Potassium hydroxide 45%

Long term exposure limit (ACGIH TLV) (mg/m<sup>3</sup>): 2

Disodium disulphite

Long term exposure limit (ACGIH TLV) (mg/m<sup>3</sup>): 5 mg/m<sup>3</sup>

Long term exposure limit (NIOSH REL) (mg/m<sup>3</sup>): 5 mg/m<sup>3</sup>

Part 1910 - Occupational Safety and Health Standards (29 CFR 1910.1000 TABLE Z-1 - Limits for Air Contaminants)

### 8.2. Exposure controls

Good ventilations (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation or other engineering controls to maintain airborne levels below recommended exposure limits. Compliance with the given occupational exposure limits values should be controlled on a regular basis.

- General recommendations:** Smoking, drinking and consumption of food is not allowed in the work area.
- Exposure scenarios:** There are no exposure scenarios implemented for this product.
- Exposure limits:** Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.
- Appropriate technical measures:** The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked. Ensure that eyewash stations and safety showers are located within easy reach. Apply standard precautions during use of the product. Avoid inhalation of vapours.
- Hygiene measures:** Take off contaminated clothing and wash it before reuse.

**Measures to avoid environmental exposure:** Keep damming materials near the workplace. If possible, collect spillage during work.


**Individual protection measures, such as personal protective equipment**

**Generally:** Wash contaminated clothing before reuse.  
Use only protective equipment with a recognized certification mark, e.g. the UL mark.


**Respiratory Equipment:**

Type	Class	Colour	Standards	
Respiratory protection is not needed in the event of adequate ventilation.				


**Skin protection:**

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	

**Hand protection:**

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Gloves	-	-	EN374	

**Eye protection:**

Type	Standards	
Safety glasses with side shields.	EN166	

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1. Information on basic physical and chemical properties**

**Physical state:** Liquid  
**Colour:** Colourless  
**Odour:** None  
**Odour threshold (ppm):** Testing not relevant or not possible due to the nature of the product.  
**pH:** 14.6  
**pH in solution:** 10.1 - 10.2 (8.0%)  
**Density (g/cm<sup>3</sup>):** Testing not relevant or not possible due to the nature of the product.  
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<b>Relative density:</b>	1.4
<b>Kinematic viscosity:</b>	No data available
<b>Particle characteristics:</b>	Not applicable - product is a liquid

#### Phase changes

<b>Melting point (°F):</b>	No data available
<b>Softening point/range (°F):</b>	Does not apply to liquids.
<b>Boiling point (°F):</b>	212
<b>Boiling point (°C):</b>	100
<b>Vapour pressure:</b>	18 mmHg
<b>Relative vapour density:</b>	0.6
<b>Decomposition temperature (°F):</b>	No data available

#### Data on fire and explosion hazards

<b>Flash point (°F):</b>	Not applicable
<b>Flammability (°F):</b>	Not applicable
<b>Auto-ignition temperature (°F):</b>	No data available
<b>Explosion limits (% v/v):</b>	Testing not relevant or not possible due to the nature of the product.

#### Solubility

<b>Solubility in water:</b>	Completely soluble
<b>n-octanol/water coefficient (LogKow):</b>	Testing not relevant or not possible due to the nature of the product.
<b>Solubility in fat (g/L):</b>	Testing not relevant or not possible due to the nature of the product.

#### 9.2. Other information

<b>Sensitivity to shock:</b>	No
<b>Dust explosion class:</b>	St0 (No explosion)
<b>Evaporation rate (n-butylacetate = 100):</b>	No data available
<b>Other physical and chemical parameters:</b>	No data available.
<b>Oxidizing properties:</b>	Not applicable

### SECTION 10: STABILITY AND REACTIVITY

#### 10.1. Reactivity

May be corrosive to metals.

#### 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

#### 10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

#### 10.4. ▼ Conditions to avoid





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Keep away from heat.  
Mechanical influences (e.g. Shock, pressure, impact, friction). Fire, sparks or other ignition sources.  
Incompatible materials

**10.5. Incompatible materials**

Acids. Strong oxidizing agents. Contact with strong acids may liberate sulphur dioxide.

**10.6. Hazardous decomposition products**

Hazardous decomposition products are: Sulphur oxides, Carbon oxides. Nitrogen oxides (NOx).

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1. Information on toxicological effects**

Prolonged inhalation may be harmful. Expected to be a low hazard for recommended handling.  
Causes skin irritation. Causes serious eye irritation. Expected to be a low ingestion hazard.

**Acute toxicity**

Irritation effects to the skin, eyes, and lungs.

**Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/irritation**

Causes serious eye irritation.

**Respiratory sensitisation**

Not a respiratory sensitizer.

**Skin sensitisation**

This product is not expected to cause skin sensitization.

**Germ cell mutagenicity**

No data available to indicate product or any components present at greater than 1% are mutagenic or genotoxic.

**Carcinogenicity**

Not classified as to carcinogenicity to humans.

**Reproductive toxicity**

This product is not expected to cause reproductive or developmental effects.

**STOT-single exposure**

Not classified

**STOT-repeated exposure**

Not classified.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Long term effects**

Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

**Other information**

None known.

**SECTION 12: ECOLOGICAL INFORMATION**



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**12.1. Toxicity**

This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**12.2. Persistence and degradability**

Based on available data, the classification criteria are not met.

**12.3. Bioaccumulative potential**

Based on available data, the classification criteria are not met.

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

**12.6. Other adverse effects**

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. None known.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

Waste Treatment Methods: Product waste material must be disposed of in accordance with the national and local regulations. handle uncleaned containers like the product itself.

**RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)**


None of the components are listed

**Specific labelling**

**Contaminated packing**



Packaging containing residues of the product must be disposed of similarly to the product.

**SECTION 14: TRANSPORT INFORMATION**

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
DOT	UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium Carbonate Liquid 47%)	Transport hazard class: 8 Label: 8 Classification code: C5 	III	No	Limited quantities: 5 L Tunnel restriction code: (E) See below for additional information.
IMDG	UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium	Transport hazard class: 8 Label: 8	III	No	Limited quantities: 5



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	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
		Carbonate Liquid 47%)	Classification code: C5 			L EmS: F-A S-B See below for additional information.
IATA	UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium Carbonate Liquid 47%)	Transport hazard class: 8 Label: 8 Classification code: C5 	III	No	See below for additional information.

\* Packing group

\*\* Environmental hazards

**Additional information**

**LIMITED QUANTITY EXEMPTION**

Not dangerous goods according to DOT, IATA and IMDG.

Not Regulated as a Dangerous Good due to Limited Quantity Exemption. This product is packaged in 0.8 L bottles.

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

No data available.

**SECTION 15: REGULATORY INFORMATION**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**15.2. U.S. Federal regulations**

**TSCA (the non-confidential portion):**

Potassium Carbonate Liquid 47% is listed  
Potassium hydroxide 45% is listed  
Dissolvine H-40 is listed  
Disodium disulphite is listed  
sodium bromide is listed

**Clean Air Act:**

None of the components are listed

**EPCRA Section 302:**

None of the components are listed

**EPCRA Section 304:**

None of the components are listed

**EPCRA section 313:**

None of the components are listed

**CERCLA:**

Potassium hydroxide 45% is regulated with a Reportable Quantity (RQ) of: 1000 pounds

**State regulations**



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<b>California / Prop. 65:</b>	None of the components are listed
<b>Massachusetts / Right To Know Act:</b>	Potassium hydroxide 45% is listed Disodium disulphite is listed
<b>New Jersey / Right To Know Act:</b>	Potassium hydroxide 45% / Substance number: 1571 Potassium hydroxide 45% is on the Special Health Hazard Substance List  — Disodium disulphite / Substance number: 1708 Disodium disulphite is on the Special Health Hazard Substance List  — sodium bromide / Substance number:  —
<b>New York / Right To Know Act:</b>	Potassium hydroxide 45% is listed Potassium hydroxide 45% is regulated with a Reportable Quantity (RQ) of: 1000 pounds Potassium hydroxide 45% is regulated with a Treshold Reporting Quantity (TRQ) of: 100 pounds  — Disodium disulphite is listed Disodium disulphite is regulated with a Treshold Reporting Quantity (TRQ) of: 0 pounds  —
<b>Pennsylvania / Right To Know Act:</b>	Potassium hydroxide 45% is listed Potassium hydroxide 45% is hazardous to the environment (E)  — Disodium disulphite is listed  — sodium bromide is listed  —

**NFPA**

Health hazard: 3  
Fire hazard: 0  
Instability hazard: 1

**15.4. Restrictions for application**

No special.

**15.5. Demands for specific education**

No specific requirements.

**15.6. Additional information**

If this product is sold in retail, it must be delivered with child-resistant fastening.

**15.7. Chemical safety assessment**

No

**15.8. Sources**

OSHA Hazard Communication Standard (29 CFR 1910.1200)

**SECTION 16: OTHER INFORMATION**



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### **Full text of H-phrases as mentioned in section 3**

H290, May be corrosive to metals.  
H302, Harmful if swallowed.  
H314, Causes severe skin burns and eye damage.  
H315, Causes skin irritation.  
H317, May cause an allergic skin reaction.  
H318, Causes serious eye damage.  
H319, Causes serious eye irritation.  
H335, May cause respiratory irritation.

### **The full text of identified uses as mentioned in section 1**

None known.

### **Abbreviations and acronyms**

ACGIH = American Conference of Governmental Industrial Hygienists  
ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway  
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
CAS = Chemical Abstracts Service  
CERCLA = Comprehensive Environmental Response Compensation and Liability Act  
DOT = Department of Transportation  
EINECS = European Inventory of Existing Commercial chemical Substances  
EPCRA = Emergency Planning and Community Right-To-Know Act  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
HCIS = Hazardous Chemical Information System  
HNOC = Hazards Not Otherwise Classified  
IARC = International Agency for Research on Cancer  
IATA = International Air Transport Association  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
NFPA = National Fire Protection Association  
NIOSH = National Institute for Occupational Safety and Health  
OECD = Organisation for Economic Co-operation and Development  
OSHA = Occupational Safety and Health Administration  
PBT = Persistent, Bioaccumulative and Toxic  
RCRA = Resource Conservation and Recovery Act  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RRN = REACH Registration Number  
SARA = Superfund Amendments and Reauthorization Act  
SCL = A specific concentration limit.  
STEL = Short-term exposure limits  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
TSCA = The Toxic Substances Control Act  
TWA = Time weighted average  
UN = United Nations  
UVBC = Unknown or variable composition, complex reaction products or of biological materials  
VOC = Volatile Organic Compound



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vPvB = Very Persistent and Very Bioaccumulative

### **Additional information**

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by HCS (29 CFR 1910.1200).

The classification of the mixture in regard of skin corrosion and serious eye damage is based on the pH-criterion given by HCS (29 CFR 1910.1200).

### **The safety data sheet is validated by**

Validated by Photo Systems Inc./cf

### **▼ Other**

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product.

Information in this safety data sheet cannot be used as a product specification.

**DISCLAIMER:** The information contained in this Safety Data Sheet is correct to the best of our knowledge and experience at the time of publication. However, no warranty is expressed or implied regarding the accuracy of this data nor the results to be obtained from the use thereof.

It is the user's responsibility to assure the proper use, storage, and disposal of these materials to ensure the safety and health of the user and to protect the environment.

Country-language: US-en



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## SAFETY DATA SHEET

# KODAK C41 RA LU Developer Repl. LORR Part B

### SECTION 1: IDENTIFICATION

#### 1.1. Product identifier

**Trade name:** KODAK C41 RA LU Developer Repl. LORR Part B  
Obtain special instructions before use.

**Product no.:** 5199013B

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**▼ Relevant identified uses of the substance or mixture:** Photo chemical for developing color negative film.

**Uses advised against :** None known.

#### 1.3. Details of the supplier of the safety data sheet

**Company and address:** **Photo Systems Inc.**  
7190 Huron River Drive  
MI 48130 Dexter  
USA  
Tel: +1 (734) 424-9625  
Fax: +1-734-580-2199  
www.photosys.com

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

**Manufacturer:** **Photo Systems Inc.**  
7190 Huron River Drive  
MI 48130 Dexter  
USA  
Tel: +1 (734) 424-9625  
Fax: +1-734-580-2199  
www.photosys.com

**Contact person:** Jake Bolt

**E-mail:** jake@photosys.com

**SDS date:** 7/9/2024

**SDS Version:** 3.0

**Date of previous version:** 2/29/2024 (2.0)

#### 1.4. Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® (triage.webpoisoncontrol.org) to get specific guidance for your case  
See also section 4 "First aid measures".



## SECTION 2: HAZARD(S) IDENTIFICATION

### OSHA/HCS status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### 2.1. Classification of the substance or mixture

Met. Corr. 1; H290, May be corrosive to metals.

Skin Irrit. 2; H315, Causes skin irritation.

Skin Sens. 1; H317, May cause an allergic skin reaction.

Eye Irrit. 2; H319, Causes serious eye irritation.

Muta. 2; H341, Suspected of causing genetic defects.

STOT RE 2; H373, May cause damage to organs through prolonged or repeated exposure.

#### 2.2. Label elements

##### Hazard pictogram(s):



##### Signal word:

Warning

##### Hazard statement(s):

May be corrosive to metals. (H290)

Causes skin irritation. (H315)

May cause an allergic skin reaction. (H317)

Causes serious eye irritation. (H319)

Suspected of causing genetic defects. (H341)

May cause damage to organs through prolonged or repeated exposure. (H373)

##### Precautionary statement(s):

###### General:

If medical advice is needed, have product container or label at hand. (P101)

Keep out of reach of children. (P102)

###### Prevention:

Obtain special instructions before use. (P201)

Keep only in original packaging. (P234)

Do not breathe vapour/mist. (P260)

Wash hands thoroughly after handling. (P264)

Wear eye protection/protective gloves/protective clothing. (P280)

###### Response:

IF ON SKIN: Wash with plenty of water and soap. (P302+P352)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)

IF exposed or concerned: Get medical advice/attention. (P308+P313)

Get medical advice/attention if you feel unwell. (P314)

If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)

If eye irritation persists: Get medical advice/attention. (P337+P313)

Take off contaminated clothing and wash it before reuse.





Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

**Storage:** (P362+P364)  
Absorb spillage to prevent material damage. (P390)  
Store locked up. (P405)

**Disposal:** Dispose of contents/container in accordance with local regulation  
(P501)

**Additional labelling:** Not applicable.

**2.3. Other hazards**

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1. Substances**  
Not applicable. This product is a mixture.

**3.2. ▼ Mixtures**

Product/substance	Identifiers	% w/w	Classification	Note
Hydroxylamine Sulfate	CAS No.: 10039-54-0	10-15%	Met. Corr. 1, H290 Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319	

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

**Other information**

**SECTION 4: FIRST-AID MEASURES**

**4.1. Description of first aid measures**

**General information:** If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).  
Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

**Inhalation:** Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her. Get medical attention if symptoms occur.

**Skin contact:** Immediately flush skin with plenty of water. Remove



- Eye contact:** contaminated clothing. Get medical attention in if symptoms occur or in case of eczema or other skin disorders.
- If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.
- Ingestion:** Never give anything by mouth to an unconscious person. No NOT induce vomiting. Rinse mouth. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Get medical attention immediately.
- Burns:** Not applicable.

**4.2. ▼ Most important symptoms and effects, both acute and delayed**

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact. Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

Most important known symptoms and effects are described in the labeling (see Section 2.2 and in Section 11.)

**4.3. Indication of any immediate medical attention and special treatment needed**

IF exposed or concerned:

Get immediate medical advice/attention.

**Information to medics**

Bring this safety data sheet or the label from this product.

## SECTION 5: FIRE-FIGHTING MEASURES

**5.1. Extinguishing media**

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

**5.2. Special hazards arising from the substance or mixture**

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Sulphur oxides

Nitrogen oxides (NO<sub>x</sub>)

Ammonia

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Help Line on 1-800-222-1222 (24/7) in order to obtain further advice.

Incompatible materials are Acids. Halogenated materials, Metals. Strong oxidizing agents.

## SECTION 6: ACCIDENTAL RELEASE MEASURES



Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

**6.1. Personal precautions, protective equipment and emergency procedures**

Keep unnecessary personnel away. Use personnel protective equipment and clothing recommended in Section 8.

Avoid direct contact with spilled substances.

Contaminated areas may be slippery.

**6.2. Environmental precautions**

Prevent product from entering drains, water courses or onto the ground.

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

**6.3. Methods and material for containment and cleaning up**

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

**6.4. Reference to other sections**

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

**SECTION 7: HANDLING AND STORAGE**

**7.1. Precautions for safe handling**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get this material in contact with eyes. Do not taste or swallow. Avoid contact with skin and clothing. Avoid prolonged exposure. When using, Do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling.

Avoid direct contact with the product.

Avoid contact during pregnancy and while nursing.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

**7.2. Conditions for safe storage, including any incompatibilities**

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Store in a container with a resistant inner liner.

**Recommended storage material:** Keep only in original packaging.

**Storage temperature:** Dry, cool and well ventilated  
Store in corrosive resistant container.

**Incompatible materials:** Strong acids  
Strong oxidizing agents  
Halogenated materials  
Metal

**7.3. Specific end use(s)**

This product should only be used for applications quoted in section 1.2.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### 8.1. Control parameters

Occupational Exposure Limits

No substances are listed with a permissible exposure limit (ref: 29 CFR 1910.1000 TABLE Z-1)

### 8.2. Exposure controls

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

Apply general control to prevent unnecessary exposure

**General recommendations:** Smoking, drinking and consumption of food is not allowed in the work area.

**Exposure scenarios:** There are no exposure scenarios implemented for this product.

**Exposure limits:** Occupational exposure limits have not been defined for the substances in this product.

**Appropriate technical measures:** Do not recirculate outlet air that contain the substances. Apply standard precautions during use of the product. Avoid inhalation of vapours.

**Hygiene measures:** Take off contaminated clothing and wash it before reuse.

**Measures to avoid environmental exposure:** Keep damming materials near the workplace. If possible, collect spillage during work.


### Individual protection measures, such as personal protective equipment

**Generally:** Use only protective equipment with a recognized certification mark, e.g. the UL mark.


#### Respiratory Equipment:

Type	Class	Colour	Standards	
Respiratory protection is not needed in the event of adequate ventilation.				

#### Skin protection:

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	


#### Hand protection:

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Gloves	-	-	EN374	

#### Eye protection:



Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

Type	Standards	
Safety glasses with side shields.	EN166	

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<b>Physical state:</b>	Liquid
<b>Colour:</b>	Clear
<b>Odour:</b>	None
<b>Odour threshold (ppm):</b>	Testing not relevant or not possible due to the nature of the product.
<b>pH:</b>	3.4
<b>Density (g/cm<sup>3</sup>):</b>	No data available
<b>Relative density:</b>	1.1
<b>Kinematic viscosity:</b>	No data available
<b>Particle characteristics:</b>	Not applicable

#### Phase changes

<b>Melting point (°F):</b>	No data available
<b>Softening point/range (°F):</b>	Does not apply to liquids.
<b>Boiling point (°F):</b>	Not applicable
<b>Vapour pressure:</b>	18 mmHg
<b>Relative vapour density:</b>	0.6
<b>Decomposition temperature (°F):</b>	No data available

#### Data on fire and explosion hazards

<b>Flash point (°F):</b>	Not applicable
<b>Flammability (°F):</b>	Not applicable
<b>Auto-ignition temperature (°F):</b>	No data available
<b>Explosion limits (% v/v):</b>	Testing not relevant or not possible due to the nature of the product.

#### Solubility

<b>Solubility in water:</b>	Completely soluble
<b>n-octanol/water coefficient (LogKow):</b>	Testing not relevant or not possible due to the nature of the product.
<b>Solubility in fat (g/L):</b>	Testing not relevant or not possible due to the nature of the product.

### 9.2. Other information

<b>Sensitivity to shock:</b>	No
<b>Dust explosion class:</b>	St0 (No explosion)



Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

**Evaporation rate (n-butylacetate = 100):** No data available

**Other physical and chemical parameters:** No data available.

**Oxidizing properties:** Not applicable

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

May be corrosive to metals.  
Hazardous polymerization does not occur.

### 10.2. Chemical stability

Stable in glass and plastic containers, however, becomes unstable in contact with metal. Decomposes on heating. Safe handling temperatures are dependent on specific conditions of use and are typically substantially below onset temperatures.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

### 10.4. Conditions to avoid

May be corrosive to metals.

### 10.5. Incompatible materials

Strong acids  
Halogenated materials  
Strong oxidizing agents

### 10.6. Hazardous decomposition products

Hazardous decomposition products: Sulphur oxides and Nitrogen oxides (NOx)  
Ammonia

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Acute toxicity

Expected to be a low inhalation hazard for recommended handling. Causes skin irritation and may cause an allergic skin reaction. Causes serious eye irritation and is harmful if swallowed. May cause damage to organs if swallowed.

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/irritation

Causes serious eye irritation.

#### Respiratory sensitisation

Not a respiratory sensitizer.

#### Skin sensitisation

May cause an allergic skin reaction.

#### Germ cell mutagenicity

No data available to indicate product or any components present at greater than 1% are mutagenic or genotoxic.



Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

### **Carcinogenicity**

Based on available data, the classification criteria are not met.

### **Reproductive toxicity**

This product is not expected to cause reproductive or developmental effects.

### **STOT-single exposure**

May cause damage to organs (blood).

### **STOT-repeated exposure**

Not classified.

### **Aspiration hazard**

Based on available data, the classification criteria are not met.

### **Long term effects**

May cause damage to organs through prolonged or repeated exposure.

### **Other information**

None known.

## **SECTION 12: ECOLOGICAL INFORMATION**

### **12.1. Toxicity**

Toxicity to fish LC50 - Pimephales promelas (fathead minnow - 1 - 10 mg/l - 96 h  
Toxicity to daphnia and other aquatic invertebrates: EC50- Daphnia magna (water flea) - 1.62 mg/l - 48 h

### **12.2. Persistence and degradability**

Readily biodegradable

### **12.3. Bioaccumulative potential**

Based on available data, the classification criteria are not met.

### **12.4. Mobility in soil**

No data available.

### **12.5. Results of PBT and vPvB assessment**

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

### **12.6. Other adverse effects**

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## **SECTION 13: DISPOSAL CONSIDERATIONS**

### **Waste treatment methods**

Waste Treatment Methods: Product waste material must be disposed of in accordance with the national and local regulations. handle uncleaned containers like the product itself.

### **RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)**

None of the components are listed

### **Specific labelling**




### **Contaminated packing**

Packaging containing residues of the product must be disposed of similarly to the product.



Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

## SECTION 14: TRANSPORT INFORMATION

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
DOT	UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydroxylamine Sulfate)	Transport hazard class: 8 Label: 8 Classification code: C1 	III	No	Limited quantities: 5 L Tunnel restriction code: (E) See below for additional information.
IMDG	UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydroxylamine Sulfate)	Transport hazard class: 8 Label: 8 Classification code: C1 	III	No	Limited quantities: 5 L EmS: F-A S-B See below for additional information.
IATA	UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Hydroxylamine Sulfate)	Transport hazard class: 8 Label: 8 Classification code: C1 	III	No	See below for additional information.

\* Packing group

\*\* Environmental hazards

### Additional information

LIMITED QUANTITY EXEMPTION

Not dangerous goods according to DOT, IATA and IMDG.

### 14.6. Special precautions for user

Not applicable.

LIMITED QUANTITY EXCEPTION. This product is packaged in 0.5L bottles.

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available.

## SECTION 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture





Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

## 15.2. U.S. Federal regulations

<b>TSCA (the non-confidential portion):</b>	Hydroxylamine Sulfate is listed
<b>Clean Air Act:</b>	None of the components are listed
<b>EPCRA Section 302:</b>	None of the components are listed
<b>EPCRA Section 304:</b>	None of the components are listed
<b>EPCRA section 313:</b>	None of the components are listed
<b>CERCLA:</b>	None of the components are listed

## State regulations

<b>California / Prop. 65:</b>	None of the components are listed
<b>Massachusetts / Right To Know Act:</b>	None of the components are listed
<b>New Jersey / Right To Know Act:</b>	Hydroxylamine Sulfate / Substance number: 1020 Hydroxylamine Sulfate is on the Special Health Hazard Substance List
<b>New York / Right To Know Act:</b>	— Hydroxylamine Sulfate is listed Hydroxylamine Sulfate is regulated with a Treshold Reporting Quantity (TRQ) of: 1 pounds —
<b>Pennsylvania / Right To Know Act:</b>	None of the components are listed

## NFPA

Health hazard: 3  
Fire hazard: 0  
Instability hazard: 1

## 15.4. Restrictions for application

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

## 15.5. Demands for specific education

No specific requirements.

## 15.6. Additional information

Not applicable.

## 15.7. Chemical safety assessment

No

## 15.8. Sources

OSHA Hazard Communication Standard (29 CFR 1910.1200)

## SECTION 16: OTHER INFORMATION

### ▼ Full text of H-phrases as mentioned in section 3

H290, May be corrosive to metals.  
H302, Harmful if swallowed.  
H312, Harmful in contact with skin.



Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

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H315, Causes skin irritation.  
H319, Causes serious eye irritation.

**The full text of identified uses as mentioned in section 1**

None known.

**Abbreviations and acronyms**

ACGIH = American Conference of Governmental Industrial Hygienists  
ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway  
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
CAS = Chemical Abstracts Service  
CERCLA = Comprehensive Environmental Response Compensation and Liability Act  
DOT = Department of Transportation  
EINECS = European Inventory of Existing Commercial chemical Substances  
EPCRA = Emergency Planning and Community Right-To-Know Act  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
HCIS = Hazardous Chemical Information System  
HNOC = Hazards Not Otherwise Classified  
IARC = International Agency for Research on Cancer  
IATA = International Air Transport Association  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
NFPA = National Fire Protection Association  
NIOSH = National Institute for Occupational Safety and Health  
OECD = Organisation for Economic Co-operation and Development  
OSHA = Occupational Safety and Health Administration  
PBT = Persistent, Bioaccumulative and Toxic  
RCRA = Resource Conservation and Recovery Act  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RRN = REACH Registration Number  
SARA = Superfund Amendments and Reauthorization Act  
SCL = A specific concentration limit.  
STEL = Short-term exposure limits  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
TSCA = The Toxic Substances Control Act  
TWA = Time weighted average  
UN = United Nations  
UVBC = Unknown or variable composition, complex reaction products or of biological materials  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative

**Additional information**

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by HCS (29 CFR 1910.1200).

**The safety data sheet is validated by**

Validated by Photo Systems Inc./cf



Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

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#### ▼ Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product.

Information in this safety data sheet cannot be used as a product specification.

DISCLAIMER: The information contained in this Safety Data Sheet is correct to the best of our knowledge and experience at the time of publication. However, no warranty is expressed or implied regarding the accuracy of this data nor the results to be obtained from the use thereof.

It is the user's responsibility to assure the proper use, storage, and disposal of these materials to ensure the safety and health of the user and to protect the environment.

Country-language: US-en



Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

## SAFETY DATA SHEET

# KODAK C41 RA LU Developer Repl. LORR Part C

### SECTION 1: IDENTIFICATION

#### 1.1. Product identifier

**Trade name:** KODAK C41 RA LU Developer Repl. LORR Part C  
Obtain special instructions before use.

**Product no.:** 5199013C

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**▼ Relevant identified uses of the substance or mixture:** Photo chemical for developing color negative film.

**Uses advised against :** None known.

#### 1.3. Details of the supplier of the safety data sheet

**Company and address:** **Photo Systems Inc.**  
7190 Huron River Drive  
MI 48130 Dexter  
USA  
Tel: +1 (734) 424-9625  
Fax: +1-734-580-2199  
www.photosys.com

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

**Manufacturer:** **Photo Systems Inc.**  
7190 Huron River Drive  
MI 48130 Dexter  
USA  
Tel: +1 (734) 424-9625  
Fax: +1-734-580-2199  
www.photosys.com

**Contact person:** Jake Bolt

**E-mail:** jake@photosys.com

**SDS date:** 7/10/2024

**SDS Version:** 2.0

**Date of previous version:** 2/29/2024 (2.0)

#### 1.4. Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® (triage.webpoisoncontrol.org) to get specific guidance for your case  
See also section 4 "First aid measures".



## SECTION 2: HAZARD(S) IDENTIFICATION

### OSHA/HCS status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### 2.1. Classification of the substance or mixture

Acute Tox. 4; H302, Harmful if swallowed.

Skin Sens. 1; H317, May cause an allergic skin reaction.

Eye Irrit. 2; H319, Causes serious eye irritation.

STOT RE 2; H373, May cause damage to organs through prolonged or repeated exposure.

#### 2.2. Label elements

##### Hazard pictogram(s):



##### Signal word:

Warning

##### Hazard statement(s):

Harmful if swallowed. (H302)

May cause an allergic skin reaction. (H317)

Causes serious eye irritation. (H319)

May cause damage to organs through prolonged or repeated exposure. (H373)

##### Precautionary statement(s):

###### General:

If medical advice is needed, have product container or label at hand. (P101)

Keep out of reach of children. (P102)

###### Prevention:

Do not breathe vapour/mist. (P260)

Wash hands thoroughly after handling. (P264)

Do not eat, drink or smoke when using this product. (P270)

Wear eye protection/protective gloves/protective clothing. (P280)

###### Response:

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. (P301+P312)

IF ON SKIN: Wash with plenty of water and soap. (P302+P352)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)

Get medical advice/attention if you feel unwell. (P314)

If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)

If eye irritation persists: Get medical advice/attention. (P337+P313)

Take off contaminated clothing and wash it before reuse. (P362+P364)

###### Storage:

-

###### Disposal:

Dispose of contents/container in accordance with local regulation



Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

(P501)

**Additional labelling:** Not applicable.

**2.3. Other hazards**

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1. Substances**

Not applicable. This product is a mixture.

**3.2. Mixtures**

Product/substance	Identifiers	% w/w	Classification	Note
N4-ETHYL-N4-(2-HYDROXYETHYL)-2-METHYL-1,4-PHENYLENEDIAMINE SULFATE SALT	CAS No.: 25646-77-9	15-25%	Acute Tox. 3, H301 Skin Sens. 1, H317 Skin Sens. 1A, H317 STOT RE 2, H373	
Disodium disulphite	CAS No.: 7681-57-4	1-3%	Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Dam. 1, H318	

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

**Other information**

-

**SECTION 4: FIRST-AID MEASURES**

**4.1. Description of first aid measures**

**General information:**

If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).

Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

**Inhalation:**

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her. Get medical attention if symptoms occur.

**Skin contact:**

Immediately flush skin with plenty of water. Remove contaminated clothing. Get medical attention in if



- Eye contact:** symptoms occur or in case of eczema or other skin disorders.  
If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.
- Ingestion:** Never give anything by mouth to an unconscious person. No NOT induce vomiting. Rinse mouth. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Get medical attention immediately.
- Burns:** Not applicable.

**4.2. Most important symptoms and effects, both acute and delayed**

Most important known symptoms and effects are described in the labeling (see Section 2.2 and in Section 11.)

**4.3. Indication of any immediate medical attention and special treatment needed**

If eye irritation persists: Get medical advice/attention.

**Information to medics**

Bring this safety data sheet or the label from this product.

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## SECTION 5: FIRE-FIGHTING MEASURES

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**5.1. Extinguishing media**

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

**5.2. Special hazards arising from the substance or mixture**

No unusual fire or explosion hazards noted  
Hazardous decomposition products: Sulphur oxides and Nitrogen oxides (NOx)  
Carbon oxides

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Help Line on 1-800-222-1222 (24/7) in order to obtain further advice.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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**6.1. Personal precautions, protective equipment and emergency procedures**

Avoid direct contact with spilled substances.  
Ensure adequate ventilation, especially in confined areas.  
Contaminated areas may be slippery.  
Keep unnecessary personnel away. Use personnel protective equipment and clothing recommended in Section 8.

**6.2. Environmental precautions**

Prevent product from entering drains, water courses or onto the ground.

**6.3. Methods and material for containment and cleaning up**



Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

#### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get this material in contact with eyes. Do not taste or swallow. Avoid contact with skin and clothing. Avoid prolonged exposure. When using, Do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling.

Avoid direct contact with the product.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

### 7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

**Recommended storage material:** Keep only in original packaging.

**Storage temperature:** Dry, cool and well ventilated  
Keep away from fire, sparks, and heated surfaces.

**Incompatible materials:** Strong oxidizing agents  
Bases  
Acids

### 7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Occupational Exposure Limits

Disodium disulphite

Long term exposure limit (ACGIH TLV) (mg/m<sup>3</sup>): 5 mg/m<sup>3</sup>

Long term exposure limit (NIOSH REL) (mg/m<sup>3</sup>): 5 mg/m<sup>3</sup>

Part 1910 - Occupational Safety and Health Standards (29 CFR 1910.1000 TABLE Z-1 - Limits for Air Contaminants)

### 8.2. Exposure controls

Good ventilations (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation or other





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engineering controls to maintain airborne levels below recommended exposure limits. Compliance with the given occupational exposure limits values should be controlled on a regular basis.

**General recommendations:** Smoking, drinking and consumption of food is not allowed in the work area.

**Exposure scenarios:** There are no exposure scenarios implemented for this product.

**Exposure limits:** Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

**Appropriate technical measures:** The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked. Apply standard precautions during use of the product. Avoid inhalation of vapours.


**Hygiene measures:** In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

**Measures to avoid environmental exposure:** Keep damming materials near the workplace. If possible, collect spillage during work.


**Individual protection measures, such as personal protective equipment**

**Generally:** Use only protective equipment with a recognized certification mark, e.g. the UL mark.


**Respiratory Equipment:**

Type	Class	Colour	Standards	
organic vapor/P95	P95			

**Skin protection:**

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	


**Hand protection:**

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Gloves	-	-	EN374	

**Eye protection:**



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Type	Standards	
Safety glasses with side shields.	EN166	

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<b>Physical state:</b>	Liquid
<b>Colour:</b>	Yellow
<b>Odour:</b>	sharp sulfur dioxide
<b>Odour threshold (ppm):</b>	Testing not relevant or not possible due to the nature of the product.
<b>pH:</b>	2.1
<b>Density (g/cm<sup>3</sup>):</b>	Testing not relevant or not possible due to the nature of the product.
	-
<b>Relative density:</b>	1.15
<b>Kinematic viscosity:</b>	No data available
<b>Particle characteristics:</b>	Not applicable - product is a liquid

#### Phase changes

<b>Melting point (°F):</b>	No data available
<b>Softening point/range (°F):</b>	Does not apply to liquids.
<b>Boiling point (°F):</b>	212
<b>Boiling point (°C):</b>	100
<b>Vapour pressure:</b>	18 mmHg
<b>Relative vapour density:</b>	0.6
<b>Decomposition temperature (°F):</b>	No data available

#### Data on fire and explosion hazards

<b>Flash point (°F):</b>	Not applicable
<b>Flammability (°F):</b>	Not applicable
<b>Auto-ignition temperature (°F):</b>	No data available
<b>Explosion limits (% v/v):</b>	Testing not relevant or not possible due to the nature of the product.

#### Solubility

<b>Solubility in water:</b>	Completely soluble
<b>n-octanol/water coefficient (LogKow):</b>	Testing not relevant or not possible due to the nature of the product.
<b>Solubility in fat (g/L):</b>	Testing not relevant or not possible due to the nature of the product.



Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

## 9.2. Other information

<b>Sensitivity to shock:</b>	No
<b>Dust explosion class:</b>	St0 (No explosion)
<b>Evaporation rate (n-butylacetate = 100):</b>	No data available
<b>Other physical and chemical parameters:</b>	No data available.
<b>Oxidizing properties:</b>	Not applicable

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

This product is stable and non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

### 10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

### 10.4. Conditions to avoid

Contact with incompatible materials.

### 10.5. Incompatible materials

Acids. Strong oxidizing agents. Contact with strong acids may liberate sulphur dioxide.

### 10.6. Hazardous decomposition products

Hazardous decomposition products are: Sulphur oxides, Carbon oxides. Nitrogen oxides (NOx).

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

Expected to be a low inhalation hazard for recommended handling. Causes skin irritation and may cause an allergic skin reaction. Causes serious eye irritation and is harmful if swallowed. May cause damage to organs if swallowed.

#### Acute toxicity

Harmful if swallowed.

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/irritation

Causes serious eye irritation.

#### Respiratory sensitisation

Not a respiratory sensitizer.

#### Skin sensitisation

May cause an allergic skin reaction.

#### Germ cell mutagenicity

No data available to indicate product or any components present at greater than 1% are mutagenic or genotoxic.



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### **Carcinogenicity**

Not classified as to carcinogenicity to humans.

### **Reproductive toxicity**

This product is not expected to cause reproductive or developmental effects.

### **STOT-single exposure**

May cause damage to organs (kidney).

### **STOT-repeated exposure**

May cause damage to organs through prolonged or repeated exposure.

### **Aspiration hazard**

Based on available data, the classification criteria are not met.

### **Long term effects**

May cause damage to organs through prolonged or repeated exposure. May be harmful if absorbed through skin. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

### **Other information**

None known.

## **SECTION 12: ECOLOGICAL INFORMATION**

### **12.1. Toxicity**

Harmful to aquatic life with long lasting effects.

### **12.2. Persistence and degradability**

Not readily biodegradable.

### **12.3. Bioaccumulative potential**

Based on available data, the classification criteria are not met.

### **12.4. Mobility in soil**

No data available.

### **12.5. Results of PBT and vPvB assessment**

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

### **12.6. Other adverse effects**

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## **SECTION 13: DISPOSAL CONSIDERATIONS**

### **Waste treatment methods**

Waste Treatment Methods: Product waste material must be disposed of in accordance with the national and local regulations. handle uncleaned containers like the product itself.

### **RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)**




None of the components are listed

### **Specific labelling**

### **Contaminated packing**

Packaging containing residues of the product must be disposed of similarly to the product.

## SECTION 14: TRANSPORT INFORMATION

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
DOT	2922	UN2922 Corrosive liquid, toxic, n.o.s. (4-(N-ethyl-N-2-hydroxyethyl)-2-methylphenylenediamine sulfate)	Transport hazard class: 8, 6.1 Label: 8+6.1 Classification code: CT1 	III	No	Limited quantities: 1L Tunnel restriction code: (C/D) See below for additional information.
IMDG	2922	UN2922 Corrosive liquid, toxic, n.o.s. (4-(N-ethyl-N-2-hydroxyethyl)-2-methylphenylenediamine sulfate)	Transport hazard class: 8, 6.1 Label: 8+6.1 Classification code: CT1 	III	No	Limited quantities: 1L See below for additional information.
IATA	2922	UN2922 Corrosive liquid, toxic, n.o.s. (4-(N-ethyl-N-2-hydroxyethyl)-2-methylphenylenediamine sulfate)	Transport hazard class: 8, 6.1 Label: 8+6.1 Classification code: CT1 	III	No	See below for additional information.

\* Packing group

\*\* Environmental hazards

### Additional information

LIMITED QUANTITY EXEMPTION

NOT REGULATED AS A DANGEROUS GOOD - due to Limited Quantity Exemption. This product is packaged at less than 0.5 L

Not dangerous goods according to DOT, IATA and IMDG.

### 14.6. Special precautions for user

Not applicable.

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available.

## SECTION 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### 15.2. U.S. Federal regulations



Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

**TSCA (the non-confidential portion):**

N4-ETHYL-N4-(2-HYDROXYETHYL)-2-METHYL-1,4-PHENYLENEDIAMINE SULFATE SALT is listed  
Disodium disulphite is listed

**Clean Air Act:**

None of the components are listed

**EPCRA Section 302:**

None of the components are listed

**EPCRA Section 304:**

None of the components are listed

**EPCRA section 313:**

None of the components are listed

**CERCLA:**

None of the components are listed

**State regulations**

**California / Prop. 65:**

None of the components are listed

**Massachusetts / Right To Know Act:**

Disodium disulphite is listed

**New Jersey / Right To Know Act:**

Disodium disulphite / Substance number: 1708  
Disodium disulphite is on the Special Health Hazard Substance List

**New York / Right To Know Act:**

Disodium disulphite is listed  
Disodium disulphite is regulated with a Treshold Reporting Quantity (TRQ) of: 0 pounds

**Pennsylvania / Right To Know Act:** Disodium disulphite is listed

**NFPA**

Health hazard: 3

Fire hazard: 1

Instability hazard: 0

**15.4. Restrictions for application**

No special.

**15.5. Demands for specific education**

No specific requirements.

**15.6. Additional information**

Not applicable.

**15.7. Chemical safety assessment**

No

**15.8. Sources**

OSHA Hazard Communication Standard (29 CFR 1910.1200)

**SECTION 16: OTHER INFORMATION**

**Full text of H-phrases as mentioned in section 3**

H301, Toxic if swallowed.

H302, Harmful if swallowed.

H315, Causes skin irritation.

H317, May cause an allergic skin reaction.

H318, Causes serious eye damage.



Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

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H373, May cause damage to organs through prolonged or repeated exposure.

**The full text of identified uses as mentioned in section 1**

None known.

**Abbreviations and acronyms**

- ACGIH = American Conference of Governmental Industrial Hygienists
- ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
- ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- CAS = Chemical Abstracts Service
- CERCLA = Comprehensive Environmental Response Compensation and Liability Act
- DOT = Department of Transportation
- EINECS = European Inventory of Existing Commercial chemical Substances
- EPCRA = Emergency Planning and Community Right-To-Know Act
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- HCIS = Hazardous Chemical Information System
- HNOC = Hazards Not Otherwise Classified
- IARC = International Agency for Research on Cancer
- IATA = International Air Transport Association
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- NFPA = National Fire Protection Association
- NIOSH = National Institute for Occupational Safety and Health
- OECD = Organisation for Economic Co-operation and Development
- OSHA = Occupational Safety and Health Administration
- PBT = Persistent, Bioaccumulative and Toxic
- RCRA = Resource Conservation and Recovery Act
- RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
- RRN = REACH Registration Number
- SARA = Superfund Amendments and Reauthorization Act
- SCL = A specific concentration limit.
- STEL = Short-term exposure limits
- STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
- STOT-SE = Specific Target Organ Toxicity - Single Exposure
- TSCA = The Toxic Substances Control Act
- TWA = Time weighted average
- UN = United Nations
- UVBC = Unknown or variable composition, complex reaction products or of biological materials
- VOC = Volatile Organic Compound
- vPvB = Very Persistent and Very Bioaccumulative

**Additional information**

The classification of the mixture in regard of health hazards is in accordance with the calculation methods given by HCS (29 CFR 1910.1200).

**The safety data sheet is validated by**

Validated by Photo Systems Inc./cf

**▼ Other**



Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

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A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product.

Information in this safety data sheet cannot be used as a product specification.

**DISCLAIMER:** The information contained in this Safety Data Sheet is correct to the best of our knowledge and experience at the time of publication. However, no warranty is expressed or implied regarding the accuracy of this data nor the results to be obtained from the use thereof. It is the user's responsibility to assure the proper use, storage, and disposal of these materials to ensure the safety and health of the user and to protect the environment.

Country-language: US-en