



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

SAFETY DATA SHEET

KODAK C41 Developer Replenisher Part A

SECTION 1: IDENTIFICATION

1.1. Product identifier

Trade name: KODAK C41 Developer Replenisher Part A
Obtain special instructions before use.

Other names / Synonyms:

Product no.: 5199005A

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: 8/7/2024

SDS Version: 1.0

Date of previous version: 7/1/2024 (1.0)

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".



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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 Irrit. 2; H315, Causes skin irritation.

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

STOT SE 3; H335, May cause respiratory irritation.

2.2. Label elements

Hazard pictogram(s):



Signal word:

Warning

Hazard statement(s):

Harmful if swallowed. (H302)

Causes skin irritation. (H315)

May cause an allergic skin reaction. (H317)

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:

Avoid breathing mist/vapour. (P261)

Wash hands and exposed skin thoroughly after handling. (P264)

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

Call a POISON CENTER/doctor if you feel unwell. (P312)

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

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

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.



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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	
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



- Eye contact:** symptoms occur or in case of eczema or other skin disorders.
If in eyes: Flush eyes with water or saline water (20-30 °C) for at least 5 minutes. Remove contact lenses. Seek medical assistance 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

Causes serious eye irritation.

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

Treat symptomatically.

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.

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, there are no incompatible materials. Hazardous decomposition products are Sulphur oxides, Carbon oxides, and Nitrogen oxides (NOx).

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.



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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.

Recommended storage material: Always store in containers of the same material as the original container.

Storage conditions: Dry, cool and well ventilated

Incompatible materials: No specific requirements

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/m³): 5 mg/m³

Long term exposure limit (NIOSH REL) (mg/m³): 5 mg/m³

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. 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: No specific requirements.


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.				
Self contained breathing apparatus			EN137, EN139	

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

Physical state:	Liquid
Colour:	Colourless
Odour:	None
Odour threshold (ppm):	No data available
pH:	11.3
pH in solution:	10.2 (11.9%)
Density (g/cm³):	Testing not relevant or not possible due to the nature of the product. -
Relative density:	1.42
Kinematic viscosity:	No data available
Particle characteristics:	Not applicable

Phase changes

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

Data on fire and explosion hazards

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

Solubility

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



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9.2. Other information

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

This product is stable and non-reactive under normal conditions of use, storage and transport. Hazardous polymerization does not occur.

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

None known.

10.5. Incompatible materials

No specific requirements

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

Acute toxicity

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. Irritation effects: this product contains substances, which may cause irritation upon exposure to skin, eyes, or lungs.

Skin corrosion/irritation

Prolonged skin contact may cause temporary irritation.

Serious eye damage/irritation

Causes 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.



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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

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

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.



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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	-	Not regulated as dangerous goods entry		-	No	See below for additional information.
IMDG	-	Not regulated as dangerous goods entry		-	No	See below for additional information.
IATA	-	Not regulated as dangerous goods entry		-	No	See below for additional information.

* Packing group

** Environmental hazards

Additional information

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

TSCA (the non-confidential portion):

Potassium Carbonate Liquid 47% 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:

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



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New Jersey / Right To Know Act: Disodium disulphite / Substance number: 1708
Disodium disulphite is on the Special Health Hazard Substance List

—
sodium bromide / Substance number:

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

—
sodium bromide is listed

NFPA

Health hazard: 2
Fire hazard: 0
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

- H302, Harmful if swallowed.
- 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



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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

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.



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Country-language: US-en



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SAFETY DATA SHEET

KODAK C41 Developer Replenisher Part B

SECTION 1: IDENTIFICATION

1.1. Product identifier

Trade name: KODAK C41 Developer Replenisher Part B
Obtain special instructions before use.

Product no.: 5199005B

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: 8/8/2024

SDS Version: 1.0

Date of previous version: 6/17/2024 (1.0)

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".



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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.

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)

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:

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)

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)

Absorb spillage to prevent material damage. (P390)

Storage:

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Disposal:

Dispose of contents/container in accordance with local



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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 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 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 eye irritation persists: Get 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

During fire, gases hazardous to health may be formed. Hazardous decomposition products are: Sulphur oxides, Carbon oxides. Nitrogen oxides (NOx). See Section 10.

Contact with strong bases may liberate 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

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.

Keep unauthorized persons away from the spill



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

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.

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 conditions: Dry, cool and well ventilated

▼ Incompatible materials: Halogenated materials
Strong oxidizing agents
Metal
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

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:** 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.				
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:

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



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

Odour threshold (ppm):	No data available
pH:	3.4
Density (g/cm³):	1.09
Relative density:	1.06
Kinematic viscosity:	No data available
Particle characteristics:	Not applicable

Phase changes

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

Data on fire and explosion hazards

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

Solubility

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

9.2. Other information

Dust explosion class:	St0 (No explosion)
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.

10.2. Chemical stability

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



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

10.3. Possibility of hazardous reactions

None known.
Hazardous polymerization does not occur.

10.4. Conditions to avoid

Contact with incompatible materials.

10.5. Incompatible materials

Acids, Halogenated materials, Strong oxidizing agents, Metal. Contact with strong bases may liberate ammonia.

10.6. Hazardous decomposition products

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

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. may cause an allergic skin reaction. Causes eye irritation. Harmful if swallowed.

Acute toxicity

Harmful if swallowed.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory sensitisation

Not a respiratory sensitizer.

Skin sensitisation

May cause an allergic reaction.

Germ cell mutagenicity

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

Carcinogenicity

Suspected of causing cancer.

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

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

Not classified.



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

Other information

None known.

SECTION 12: ECOLOGICAL INFORMATION

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

Readily biodegradable

12.3. Bioaccumulative potential

None known.

12.4. Mobility in soil

None known

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	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



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

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
						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.

NOT REGULATED AS A DANGEROUS GOOD - Due to Limited Quantity Exemptions. This product is packaged in less than 5 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):

Hydroxylamine Sulfate 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



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

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

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



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

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

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 Developer Replenisher Part C

SECTION 1: IDENTIFICATION

1.1. Product identifier

Trade name: Obtain special instructions before use.

Product no.: 5199005C

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: 8/9/2024

SDS Version: 1.0

Date of previous version: 6/17/2024 (1.0)

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



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

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 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):

May be corrosive to metals. (H290)

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:

Keep only in original packaging. (P234)

Do not breathe vapour/mist. (P260)

Wash hands thoroughly after handling. (P264)

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

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

Absorb spillage to prevent material damage. (P390)

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	10-15%	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

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and slurred vision. Skin irritation. May cause redness and pain. May cause an allergic reaction. Dermatitis. Rash. Edema. Prolonged exposure may cause chronic effects.
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.

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

Incompatible materials are strong oxidizing agents. Metals. Contact with strong acids may liberate sulphur dioxide.

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.

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

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.

Contaminated areas may be slippery.



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

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.

Recommended storage material: Keep only in original packaging.
Container with a resistant inner liner.

Storage conditions: Dry, cool and well ventilated

Incompatible materials: Incompatible materials are Strong oxidizing agents.
Metals. Contact with strong acids may liberate sulphur dioxide.

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/m³): 5 mg/m³

Long term exposure limit (NIOSH REL) (mg/m³): 5 mg/m³

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. 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	
Respiratory protection is not needed in the event of adequate ventilation.				
organic vapor/P95	P95			


Skin protection:

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


Hand protection:



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

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

Eye protection:

Type	Standards	
Wear vapor-tight chemical goggle and a face shield.		

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Clear Light Yellow
Odour:	sharp sulfur dioxide
Odour threshold (ppm):	No data available
pH:	2.2
Density (g/cm³):	Testing not relevant or not possible due to the nature of the product.
	-
Relative density:	1.06
Kinematic viscosity:	No data available
Particle characteristics:	Not applicable

Phase changes

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

Data on fire and explosion hazards

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

Solubility



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

Solubility in water:	Completely soluble
n-octanol/water coefficient (LogKow):	Testing not relevant or not possible due to the nature of the product.
Solubility in fat (g/L):	Testing not relevant or not possible due to the nature of the product.
9.2. Other information	
Dust explosion class:	St0 (No explosion)
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.

10.2. Chemical stability

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

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 oxidizing agents

Metal

Contact with strong acids liberates 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

May cause damage to organs by inhalation. May cause damage to organs through prolonged or repeated exposure by inhalation. Expected to be a low hazard for recommended handling. In contact with strong acids or if heated, sulphites may liberate sulphur dioxide gas. Sulphur dioxide gas is irritating to the respiratory tract. Some asthmatics or hypersensitive individuals may experience breathing difficulties.

Toxic if swallowed. Some asthmatics or sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness, and diarrhea.

Acute toxicity

Harmful if swallowed.

Skin corrosion/irritation

Causes skin irritation.



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

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory sensitisation

Not a respiratory sensitizer.

Skin sensitisation

May cause an allergic reaction.

Germ cell mutagenicity

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

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 (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. Prolonged inhalation can be harmful.

Other information

None known.

SECTION 12: ECOLOGICAL INFORMATION

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

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

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

12.6. Other adverse effects

None known.



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

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 sulfatate)	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 sulfatate)	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 sulfatate)	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 Exemptions. This product is packaged in less than 1 L bottles.

14.6. Special precautions for user



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

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):

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: 0

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



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

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.

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



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

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

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 Bleach III Replenisher Part A

SECTION 1: IDENTIFICATION

1.1. Product identifier

Trade name: KODAK C41 RA Bleach III Replenisher Part A
Obtain special instructions before use.

Product no.: 5199039A

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: 8/9/2024

SDS Version: 2.0

Date of previous version: 6/17/2024 (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

Skin Sens. 1A; H317, May cause an allergic skin reaction.
Eye Irrit. 2; H319, Causes serious eye irritation.

2.2. Label elements

Hazard pictogram(s):



Signal word:

Warning

Hazard statement(s):

May cause an allergic skin reaction. (H317)
Causes serious eye irritation. (H319)

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:

Avoid breathing mist/vapour. (P261)
Wash hands thoroughly after handling. (P264)
Wear protective gloves/protective clothing/eye protection/face protection. (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 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 (P501)

Additional labelling:

Not applicable.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances



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

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
acetic acid	CAS No.: 64-19-7	10-15%	Flam. Liq. 3, H226 Skin Corr. 1A, H314 Eye Dam. 1, H318	
Ammonium bromide	CAS No.: 12124-97-9	5-10%	Eye Irrit. 2, H319	
Ammonium hydroxide 29% solution	CAS No.: 1336-21-6	5-10%	Skin Corr. 1B, H314 STOT SE 3, H335	

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 symptoms occur or in case of eczema or other skin disorders.

Eye contact:

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



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

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 skin irritation or rash occurs: Get 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.

No unusual fire or explosion hazards noted

5.2. Special hazards arising from the substance or mixture

In the event of fire, incompatible materials are Strong bases, Sodium hypochlorite (bleach), Oxidizing agents. Contact with bases may liberate ammonia. Contact with sodium hypochlorite (bleach) may liberate chloramine (toxic gas). Contact with base liberates flammable material. Hazardous decomposition products are Ammonia, Chloramine, hydrogen bromide, and nitrogen oxides (NO_x).

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.

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.

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



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

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 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.

Recommended storage material: Keep only in original packaging.

Storage conditions: Dry, cool and well ventilated

Incompatible materials: Strong oxidizing agents
Sodium hypochlorite (bleach)
Bases

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

acetic acid

Short term exposure limit (STEL) (ACGIH TLV) (ppm): 15

Short term exposure limit (STEL) (NIOSH REL) (ppm): 15

Long term exposure limit (OSHA Table Z-1) (mg/m³): 25

Long term exposure limit (OSHA Table Z-1) (ppm): 10

Long term exposure limit (ACGIH TLV) (ppm): 10

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. 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:


No specific requirements.

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.				
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:



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

Type	Standards	
Wear vapor-tight chemical goggle and a face shield.		

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Colourless
Odour:	sharp vinegar
Odour threshold (ppm):	No data available
pH:	5.0
Density (g/cm³):	Testing not relevant or not possible due to the nature of the product.
	-
Relative density:	1.08
Kinematic viscosity:	No data available
Particle characteristics:	Not applicable

Phase changes

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

Data on fire and explosion hazards

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

Solubility

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

9.2. Other information



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

Dust explosion class:	St0 (No explosion)
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

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

None known.

10.4. Conditions to avoid

Incompatible materials.

10.5. Incompatible materials

Contact with sodium hypochlorite (bleach) may form chloramine (toxic gas). Contact with base liberates flammable material. Contact with base liberates ammonia.

10.6. Hazardous decomposition products

Nitrogen oxides (NOx). Ammonia. Chloramine. Hydrogen bromide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Skin - This product contains substance which can cause skin irritation or allergic skin reaction. Inhalation may cause irritation to the respiratory system. Some asthmatics or sensitive individuals may experience difficulty breathing. Eye contact causes serious eye irritation.

Acute toxicity

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

Skin corrosion/irritation

Prolonged skin contact may cause temporary 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

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.



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

Reproductive toxicity

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

STOT-single exposure

None known.

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

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

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	-	Not regulated as dangerous goods entry		-	No	See below for additional information.
IMDG	-	Not regulated as dangerous goods entry		-	No	See below for additional information.
IATA	-	Not regulated as dangerous goods entry		-	No	See below for additional information.

* Packing group

** Environmental hazards

Additional information

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

TSCA (the non-confidential portion):

acetic acid is listed
Ammonium bromide is listed
Ammonium hydroxide 29% solution 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:

Ammonium hydroxide 29% solution is listed

CERCLA:

acetic acid is regulated with a Reportable Quantity (RQ) of: 5000 pounds
Ammonium hydroxide 29% solution is regulated with a Reportable Quantity (RQ) of: 1000 pounds

State regulations

California / Prop. 65:

None of the components are listed

Massachusetts / Right To Know

acetic acid is listed



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

- Act:** Ammonium bromide is listed
Ammonium hydroxide 29% solution is listed
- New Jersey / Right To Know Act:** acetic acid / Substance number: 0004
acetic acid is on the Special Health Hazard Substance List
—
Ammonium hydroxide 29% solution / Substance number: 0103
Ammonium hydroxide 29% solution is on the Special Health Hazard Substance List
- New York / Right To Know Act:** acetic acid is listed
acetic acid is regulated with a Reportable Quantity (RQ) of: 5000 pounds
acetic acid is regulated with a Treshold Reporting Quantity (TRQ) of: 0 pounds
—
Ammonium hydroxide 29% solution is listed
Ammonium hydroxide 29% solution is regulated with a Reportable Quantity (RQ) of: 1000 pounds
Ammonium hydroxide 29% solution is regulated with a Treshold Reporting Quantity (TRQ) of: 100 pounds
- Pennsylvania / Right To Know Act:** acetic acid is listed
acetic acid is hazardous to the environment (E)
—
Ammonium bromide is listed
—
Ammonium hydroxide 29% solution is listed
Ammonium hydroxide 29% solution is hazardous to the environment (E)
—

NFPA

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

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)



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

SECTION 16: OTHER INFORMATION

Full text of H-phrases as mentioned in section 3

- H226, Flammable liquid and vapour.
- H314, Causes severe skin burns and eye damage.
- 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



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

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

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 Bleach III Replenisher Part B

SECTION 1: IDENTIFICATION

1.1. Product identifier

Trade name: KODAK C41 RA Bleach III Replenisher Part B
Obtain special instructions before use.

Product no.: 5199039B

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: 8/9/2024

SDS Version: 1.0

Date of previous version: 6/17/2024 (1.0)

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".



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

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

Skin Irrit. 2; H315, Causes skin irritation.

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

2.2. Label elements

Hazard pictogram(s):



Signal word:

Danger

Hazard statement(s):

Causes skin irritation. (H315)

Causes serious eye damage. (H318)

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:

Wash hands and exposed skin thoroughly after handling. (P264)

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

Response:

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

Immediately call a POISON CENTER/doctor. (P310)

Storage:

-

Disposal:

-

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
acetic acid	CAS No.: 64-19-7	5-10%	Flam. Liq. 3, H226 Skin Corr. 1A, H314 Eye Dam. 1, H318	
Ammonium hydroxide	CAS No.: 1336-21-6	3-5%	Skin Corr. 1B, H314	



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

29% solution			STOT SE 3, H335
1,3-Diaminopropane-N,N,N',N'-tetraacetic acid	CAS No.: 1939-36-2	3-5%	Acute Tox. 4, H302 Eye Dam. 1, H318 Repr. 2, H361
Iron(III) nitrate nonahydrate	CAS No.: 7782-61-8	1-3%	Ox. Liq. 2, H272 Ox. Sol. 3, H272 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Nitric Acid	CAS No.: 7697-37-2	<1%	Ox. Gas 1, H270 Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318 Acute Tox. 3, H331 STOT SE 3, H335

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 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



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

- Ingestion:** the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.
- Burns:** 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 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

During fire, gases hazardous to health may be formed. Carbon oxides. Nitrogen oxides (NOx). See Section 10.

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.

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.



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

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.

Recommended storage material: Keep only in original packaging.

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

▼ Incompatible materials: Strong oxidizing agents
Sodium hypochlorite (bleach)
Metal
Bases

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

acetic acid

Short term exposure limit (STEL) (ACGIH TLV) (ppm): 15

Short term exposure limit (STEL) (NIOSH REL) (ppm): 15

Long term exposure limit (OSHA Table Z-1) (mg/m³): 25

Long term exposure limit (OSHA Table Z-1) (ppm): 10

Long term exposure limit (ACGIH TLV) (ppm): 10

Nitric Acid

Short term exposure limit (STEL) (ACGIH TLV) (ppm): 4

Short term exposure limit (STEL) (NIOSH REL) (ppm): 4

Long term exposure limit (OSHA Table Z-1) (mg/m³): 5

Long term exposure limit (OSHA Table Z-1) (ppm): 2



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

Long term exposure limit (ACGIH TLV) (ppm): 2

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: No specific requirements.

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.				
organic vapor/P95	P95			


Skin protection:




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

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	
Wear vapor-tight chemical goggle and a face shield.		

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Green
Odour:	sharp vinegar
Odour threshold (ppm):	No data available
pH:	4.1
Density (g/cm³):	Testing not relevant or not possible due to the nature of the product. -
Relative density:	1.05
Kinematic viscosity:	No data available
Particle characteristics:	Not applicable

Phase changes

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

Data on fire and explosion hazards

Flash point (°F):	Not applicable
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Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

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

Solubility

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

9.2. Other information

Dust explosion class:	St0 (No explosion)
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.
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

Incompatible materials.

10.5. Incompatible materials

Incompatible materials are: Strong bases. Metals. Strong oxidizing agents. Sodium hypochlorite (bleach). Contact with sodium hypochlorite (bleach) may form chloramine (toxic gas).

10.6. Hazardous decomposition products

Ammonia. Chloramine. Nitrogen oxides (NOx).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Irritation effects: this product contains substances, which may cause irritation upon exposure to skin, eyes, or lungs.
Harmful if swallowed.

Skin corrosion/irritation



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

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye damage.

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

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive toxicity

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

STOT-single exposure

None known.

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

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

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

None known.

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



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

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	UN3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (acetic acid)	Transport hazard class: 8 Label: 8 Classification code: C3 	III	No	Limited quantities: 5 L Tunnel restriction code: (E) See below for additional information.
IMDG	UN3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (acetic acid)	Transport hazard class: 8 Label: 8 Classification code: C3 	III	No	Limited quantities: 5 L EmS: F-A S-B See below for additional information.
IATA	UN3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (acetic acid)	Transport hazard class: 8 Label: 8 Classification code: C3 	III	No	See below for additional information.

* Packing group

** Environmental hazards

Additional information

LIMITED QUANTITY EXCEPTION. This product is packaged in 0.5L bottles.
Not dangerous goods according to DOT, IATA and IMDG.



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

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):

acetic acid is listed
Ammonium hydroxide 29% solution is listed
1,3-Diaminopropane-N,N,N',N'-tetraacetic acid is listed
Nitric Acid is listed

Clean Air Act:

Nitric Acid is regulated by section 112(r) with a reportable quantity (RQ) of: 15000 pounds

EPCRA Section 302:

Nitric Acid is regulated with a Threshold Planning Quantity (TPQ) of: 1000 pounds

EPCRA Section 304:

Nitric Acid is regulated with a Reportable Quantity (RQ) of: 1000 pounds

EPCRA section 313:

Ammonium hydroxide 29% solution is listed
Nitric Acid is listed

CERCLA:

acetic acid is regulated with a Reportable Quantity (RQ) of: 5000 pounds
Ammonium hydroxide 29% solution is regulated with a Reportable Quantity (RQ) of: 1000 pounds
Nitric Acid is regulated with a Reportable Quantity (RQ) of: 1000 pounds

State regulations

California / Prop. 65:

None of the components are listed

Massachusetts / Right To Know Act:

acetic acid is listed
Ammonium hydroxide 29% solution is listed
Nitric Acid is listed

New Jersey / Right To Know Act:

acetic acid / Substance number: 0004
acetic acid is on the Special Health Hazard Substance List

—
Ammonium hydroxide 29% solution / Substance number: 0103

Ammonium hydroxide 29% solution is on the Special Health Hazard Substance List

—
Nitric Acid / Substance number: 1356

Nitric Acid is on the Special Health Hazard Substance List

New York / Right To Know Act:

—
acetic acid is listed
acetic acid is regulated with a Reportable Quantity (RQ) of:



5000 pounds
acetic acid is regulated with a Treshold Reporting Quantity (TRQ) of: 0 pounds

—
Ammonium hydroxide 29% solution is listed
Ammonium hydroxide 29% solution is regulated with a Reportable Quantity (RQ) of: 1000 pounds
Ammonium hydroxide 29% solution is regulated with a Treshold Reporting Quantity (TRQ) of: 100 pounds

—
Nitric Acid is listed
Nitric Acid is regulated with a Reportable Quantity (RQ) of: 1000 pounds
Nitric Acid is regulated with a Treshold Reporting Quantity (TRQ) of: 10 pounds
Nitric Acid is regulated with a Treshold Planning Quantity (TPQ) of: 1000 pounds

—
Pennsylvania / Right To Know Act: acetic acid is listed
acetic acid is hazardous to the environment (E)

—
Ammonium hydroxide 29% solution is listed
Ammonium hydroxide 29% solution is hazardous to the environment (E)

—
Nitric Acid is listed
Nitric Acid is hazardous to the environment (E)

NFPA

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

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



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

H226, Flammable liquid and vapour.
H270, May cause or intensify fire; oxidiser.
H272, May intensify fire; oxidiser.
H290, May be corrosive to metals.
H302, Harmful if swallowed.
H314, Causes severe skin burns and eye damage.
H315, Causes skin irritation.
H318, Causes serious eye damage.
H319, Causes serious eye irritation.
H331, Toxic if inhaled.
H335, May cause respiratory irritation.
H361, Suspected of damaging fertility or the unborn child.

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



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

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

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.

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.

Country-language: US-en



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

SAFETY DATA SHEET

KODAK C41 RA Fixer and Replenisher

SECTION 1: IDENTIFICATION

1.1. Product identifier

Trade name: KODAK C41 RA Fixer and Replenisher
Obtain special instructions before use.

Product no.: 5199047

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: 8/9/2024

SDS Version: 1.0

Date of previous version: 6/18/2024 (1.0)

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".



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

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

2.2. Label elements
Hazard pictogram(s):



Signal word: Warning
Hazard statement(s): Causes serious eye irritation. (H319)
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:** Wash hands thoroughly after handling. (P264)
 Wear eye protection/protective gloves/protective clothing. (P280)
- Response:** 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 eye irritation persists: Get medical advice/attention. (P337+P313)
- Storage:** -
- Disposal:** -
- 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
Ammonium Thiosulfate 60% Solution	CAS No.: 7783-18-8	95-100%		
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	



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

EDTA disodium salt dihydrate	CAS No.: 6381-92-6	<1%	Acute Tox. 4, H332 STOT RE 2, H373	
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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 symptoms occur or in case of eczema or other skin disorders.

Eye contact:

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



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

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.

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 Acids, Strong bases, Sodium hypochlorite (bleach), Halogenated materials. Contact with strong acids may liberate sulfur dioxide. Contact with strong bases may liberate ammonia. Contact with sodium hypochlorite (bleach) may liberate chloramine (toxic gas). Hazardous decomposition products are Ammonia, Chloramine, Nitrogen oxides (NO_x), Sulfur 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.

Ensure adequate ventilation, especially in confined areas.

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



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

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.

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 conditions: Dry, cool and well ventilated

Incompatible materials: See Section 10.4 - Incompatible Materials.

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/m³): 5 mg/m³

Long term exposure limit (NIOSH REL) (mg/m³): 5 mg/m³

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.

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



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


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: No specific requirements.


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.				
Self contained breathing apparatus			EN137, EN139	


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: Clear
Odour: Ammonia odor
Odour threshold (ppm): No data available
pH: 6.2



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

pH in solution:	6.52 (%)
Density (g/cm³):	Testing not relevant or not possible due to the nature of the product. -
Relative density:	1.33
Kinematic viscosity:	No data available
Particle characteristics:	Not applicable

Phase changes

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

Data on fire and explosion hazards

Flash point (°F):	Not applicable
Flammability (°F):	Not applicable
Auto-ignition temperature (°F):	No data available
Explosion limits (% v/v):	Not applicable

Solubility

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

9.2. Other information

Sensitivity to shock:	No
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

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



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

Hazardous polymerization does not occur.

10.4. Conditions to avoid

Incompatible materials.

10.5. Incompatible materials

Acids, Strong bases. Sodium hypochlorite (bleach). Halogenated materials. Oxidizing agents. Contact with strong acids may liberate ammonia. Contact with sodium hypochlorite (bleach) may liberate hazardous materials.

10.6. Hazardous decomposition products

Nitrogen oxides (NOx). Sulfur oxides. Ammonia. Chloramine.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Expected to be a low hazard for recommended handling.

Acute toxicity

Harmful if swallowed.

Skin corrosion/irritation

Prolonged skin contact may cause temporary irritation.

Serious eye damage/irritation

Direct contact with eyes may cause temporary 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

None known.

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



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

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

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	-	Not regulated as dangerous goods entry		-	No	See below for additional information.
IMDG	-	Not regulated as dangerous goods entry		-	No	See below for additional information.
IATA	-	Not regulated as dangerous goods entry		-	No	See below for additional information.

* Packing group

** Environmental hazards



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

Additional information

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

TSCA (the non-confidential portion):

Ammonium Thiosulfate 60% Solution 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:

Ammonium Thiosulfate 60% Solution is listed
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:

—
Ammonium Thiosulfate 60% Solution is listed
Ammonium Thiosulfate 60% Solution 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

Pennsylvania / Right To Know Act:

—
Ammonium Thiosulfate 60% Solution is listed
Ammonium Thiosulfate 60% Solution is hazardous to the environment (E)

—
Disodium disulphite is listed

NFPA

Health hazard: 1

Fire hazard: 0

Instability hazard: 0



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

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

H302, Harmful if swallowed.

H315, Causes skin irritation.

H317, May cause an allergic skin reaction.

H318, Causes serious eye damage.

H332, Harmful if inhaled.

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



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

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

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 Final Rinse and Replenisher

SECTION 1: IDENTIFICATION

1.1. Product identifier

Trade name: KODAK C41 RA Final Rinse and Replenisher
Obtain special instructions before use.

Product no.: 5199062

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: 8/9/2024

SDS Version: 2.0

Date of previous version: 6/18/2024 (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".



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

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

Skin Irrit. 2; H315, Causes skin irritation.

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

2.2. Label elements

Hazard pictogram(s):



Signal word:

Warning

Hazard statement(s):

Causes skin irritation. (H315)

Causes serious eye irritation. (H319)

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:

Wash hands thoroughly after handling. (P264)

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

Response:

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

Storage:

-

Disposal:

-

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
2,2'-oxydiethanol	CAS No.: 111-46-6	5-10%	Acute Tox. 4, H302	
Alcohols, C12-15, ethoxylated	CAS No.: 68131-39-5	1-3%	Acute Tox. 4, H302 Eye Dam. 1, H318	[19]
5-chloro-2-methyl-2H-	CAS No.: 26172-55-4	<0.25%	Acute Tox. 2, H300	



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

isothiazol-3-one			Acute Tox. 2, H310 Skin Corr. 1B, H314 Skin Sens. 1, H317 Eye Dam. 1, H318 Acute Tox. 2, H330	
Partially Fluorinated Alcohol Substituted Glycol	CAS No.: 68131-39-5	<0.25%	Acute Tox. 4, H302	[19]
acetic acid	CAS No.: 64-19-7	<0.1%	Flam. Liq. 3, H226 Skin Corr. 1A, H314 Eye Dam. 1, H318	
Copper Nitrate 41%	CAS No.: 3251-23-8	<0.1%	Ox. Liq. 2, H272 Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318	
2-methyl-2H-isothiazol-3-one	CAS No.: 2682-20-4	<0.1%	Acute Tox. 3, H301 Acute Tox. 3, H311 Skin Corr. 1B, H314 Skin Sens. 1A, H317 Eye Dam. 1, H318 Acute Tox. 2, H330	
Sodium Hydroxide 50% Solution	CAS No.: 1310-73-2	<0.05%	Met. Corr. 1, H290 Skin Corr. 1A, H314 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

[19] UVCB = Unknown or variable composition, complex reaction products or of biological materials

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



- Inhalation:** unconscious person water or other drink.
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 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.

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

No unusual fire or explosion hazards noted
No hazardous decomposition products are known.

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.

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.



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

Ensure adequate ventilation, especially in confined areas.
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.

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.

Recommended storage material: Keep only in original packaging.

Storage conditions: Dry, cool and well ventilated

Incompatible materials: Strong oxidizing agents

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
acetic acid

Short term exposure limit (STEL) (ACGIH TLV) (ppm): 15

Short term exposure limit (STEL) (NIOSH REL) (ppm): 15

Long term exposure limit (OSHA Table Z-1) (mg/m³): 25

Long term exposure limit (OSHA Table Z-1) (ppm): 10

Long term exposure limit (ACGIH TLV) (ppm): 10



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

Sodium Hydroxide 50% Solution
 Long term exposure limit (OSHA Table Z-1) (mg/m³): 2
 Long term exposure limit (ACGIH TLV) (mg/m³): (Ceiling) 2
 Ceiling value (NIOSH REL) (mg/m³): 2

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. 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: No specific requirements.

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			
Respiratory protection is not needed in the event of adequate ventilation.				


Skin protection:




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

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:	Greenish
Odour:	None
Odour threshold (ppm):	No data available
pH:	4.5
Density (g/cm³):	Testing not relevant or not possible due to the nature of the product.
	-
Relative density:	1.014
Kinematic viscosity:	No data available
Particle characteristics:	Not applicable

Phase changes

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

Data on fire and explosion hazards

Flash point (°F):	Not applicable
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Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

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

Solubility

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

9.2. Other information

Dust explosion class:	St0 (No explosion)
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

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

Incompatible materials.

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Prolonged inhalation may be harmful. Mist or vapors irritating.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.



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

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.

Carcinogenicity

Not classified as to carcinogenicity to humans.

Reproductive toxicity

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

STOT-single exposure

None known.

STOT-repeated exposure

May cause damage to organs (kidney).

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

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.



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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	-	Not regulated as dangerous goods entry		-	No	See below for additional information.
IMDG	-	Not regulated as dangerous goods entry		-	No	See below for additional information.
IATA	-	Not regulated as dangerous goods entry		-	No	See below for additional information.

* Packing group

** Environmental hazards

Additional information

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

TSCA (the non-confidential portion):

2,2'-oxydiethanol is listed
 Alcohols, C12-15, ethoxylated is listed
 5-chloro-2-methyl-2H-isothiazol-3-one is listed
 Partially Fluorinated Alcohol Substituted Glycol is listed
 acetic acid is listed
 Copper Nitrate 41% is listed
 2-methyl-2H-isothiazol-3-one is listed
 Sodium Hydroxide 50% Solution is listed

Clean Air Act:

None of the components are listed

EPCRA Section 302:

None of the components are listed



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EPCRA Section 304: None of the components are listed
EPCRA section 313: Copper Nitrate 41% is listed
CERCLA: acetic acid is regulated with a Reportable Quantity (RQ) of: 5000 pounds
Copper Nitrate 41% is regulated with a Reportable Quantity (RQ) of: 100 pounds
Sodium Hydroxide 50% Solution is regulated with a Reportable Quantity (RQ) of: 1000 pounds

State regulations

California / Prop. 65: None of the components are listed
Massachusetts / Right To Know Act: 5-chloro-2-methyl-2H-isothiazol-3-one is listed
acetic acid is listed
Copper Nitrate 41% is listed
Sodium Hydroxide 50% Solution is listed
New Jersey / Right To Know Act: acetic acid / Substance number: 0004
acetic acid is on the Special Health Hazard Substance List
—
Copper Nitrate 41% / Substance number: 0547
—
Sodium Hydroxide 50% Solution / Substance number: 1706
Sodium Hydroxide 50% Solution is on the Special Health Hazard Substance List
—
New York / Right To Know Act: acetic acid is listed
acetic acid is regulated with a Reportable Quantity (RQ) of: 5000 pounds
acetic acid is regulated with a Treshold Reporting Quantity (TRQ) of: 0 pounds
—
Copper Nitrate 41% is listed
Copper Nitrate 41% is regulated with a Reportable Quantity (RQ) of: 100 pounds
Copper Nitrate 41% is regulated with a Treshold Reporting Quantity (TRQ) of: 10 pounds
—
Sodium Hydroxide 50% Solution is listed
Sodium Hydroxide 50% Solution is regulated with a Reportable Quantity (RQ) of: 1000 pounds
Sodium Hydroxide 50% Solution is regulated with a Treshold Reporting Quantity (TRQ) of: 100 pounds
—
Pennsylvania / Right To Know Act: 2,2'-oxydiethanol is listed
—
5-chloro-2-methyl-2H-isothiazol-3-one is hazardous to the environment (E)
—
acetic acid is listed
acetic acid is hazardous to the environment (E)
—



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

Copper Nitrate 41% is listed
Copper Nitrate 41% is hazardous to the environment (E)

—
Sodium Hydroxide 50% Solution is listed
Sodium Hydroxide 50% Solution is hazardous to the environment (E)

—

NFPA

Health hazard: 2
Fire hazard: 0
Instability hazard: 0

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

H226, Flammable liquid and vapour.
H272, May intensify fire; oxidiser.
H290, May be corrosive to metals.
H300, Fatal if swallowed.
H301, Toxic if swallowed.
H302, Harmful if swallowed.
H310, Fatal in contact with skin.
H311, Toxic in contact with skin.
H314, Causes severe skin burns and eye damage.
H317, May cause an allergic skin reaction.
H318, Causes serious eye damage.
H330, Fatal if inhaled.

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



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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

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.



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

Country-language: US-en