

SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: IMAGELINK ARCHIVE HF DEV **Product No.:** 000001016063

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

Identified uses: Photographic developer solution

Uses advised against: Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Manufacturer

Eastman Park Micrographics
6300 Cedar Springs Rd
Dallas, Texas 75235
USA

Telephone: 585-781-4551

Contact Person: Robert Breslawski

E-mail: Robert.breslawski@epminc.com

Supplier

Eastman Park Micrographics
6300 Cedar Springs Rd
Dallas, Texas 75235
USA

Telephone: 585-781-4551

1.4 Emergency telephone number:

Emergency telephone number (Belgium) : +32 3 4443333 (24h/24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

Classification according to Regulation (EC) No 1272/2008 as amended.

Health Hazards

Serious eye damage Category 1 H318: Causes serious eye damage.

2.2 Label Elements

Contains: Dipotassium disulphite



Signal Words: Danger

Hazard Statement(s): H318: Causes serious eye damage.

Precautionary Statements

Prevention: P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response: P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER/doctor/...

Supplemental label information

Contains: 4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one. May produce an allergic reaction.

2.3 Other hazards Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria Not fulfilling vPvB (very persistent/very bioaccumulative) criteria

SECTION 3: Composition/information on ingredients

3.2 Mixtures

General information: No data available.

Chemical name	Concentration	CAS-No.	EC No.	REACH Registration No.	M-Factor:	Notes
Potassium carbonate	1 - <5%	584-08-7	209-529-3	01-2119532646-36	No data available.	
Dipotassium disulphite	3 - <5%	16731-55-8	240-795-3	01-2119537422-45-0001	No data available.	
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one	0.1 - <1%	13047-13-7	235-920-3	No data available.	No data available.	

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

This substance has workplace exposure limit(s).

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

Classification

Chemical name	Classification	Notes
Potassium carbonate	Eye Irrit.: 2: H319 Skin Irrit.: 2: H315 STOT SE: 3: H335	
Dipotassium disulphite	Eye Dam.: 1: H318	
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one	Acute Tox.: 4: H302 Skin Sens.: 1: H317 Aquatic Chronic: 2: H411	

CLP: Regulation No. 1272/2008.

SECTION 4: First aid measures

General: CAUTION! First aid personnel must be aware of own risk during rescue!

4.1 Description of first aid measures

Inhalation: Move to fresh air.

Eye contact: Rinse immediately with plenty of water.

Skin Contact: Remove contaminated clothing and wash the skin thoroughly with soap and water after work.

Ingestion: Rinse mouth thoroughly.

4.2 Most important symptoms and effects, both acute and delayed: See section 11 of the SDS for additional information on health hazards.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards: See section 11 of the SDS for additional information on health hazards.

Treatment: Get medical attention if symptoms occur.

SECTION 5: Firefighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

5.1 Extinguishing media

Suitable extinguishing media: Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

- 5.2 Special hazards arising from the substance or mixture:** During fire, gases hazardous to health may be formed.
- 5.3 Advice for firefighters**
- Special fire fighting procedures:** No data available.
- Special protective equipment for fire-fighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Put on protective equipment before entering danger area.
- 6.2 Environmental Precautions:** Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.
- 6.3 Methods and material for containment and cleaning up:** Stop the flow of material, if this is without risk. Absorb with sand or other inert absorbent.
- 6.4 Reference to other sections:** For personal protection see section 8. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage:

- 7.1 Precautions for safe handling:** Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
- 7.2 Conditions for safe storage, including any incompatibilities:** Store away from incompatible materials.
- 7.3 Specific end use(s):** Reserved for industrial and professional use.

SECTION 8: Exposure controls/personal protection

- 8.1 Control Parameters**
- Occupational Exposure Limits** None of the components have assigned exposure limits.
- Biological Limit Values** None.

DNEL-Values

Critical component	type	Route of Exposure	Remarks
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Potassium carbonate	General population	Inhalation	10 mg/m3	Irritating to respiratory system.
	Workers	Dermal	16 mg/cm2	Skin irritation/corrosion
	General population	Dermal	8 mg/cm2	Skin irritation/corrosion
	Workers	Inhalation	10 mg/m3	Irritating to respiratory system.
Sodium metaphosphate	General population	Inhalation	1.304 mg/m3	Repeated dose toxicity
	Workers	Inhalation	5.289 mg/m3	Repeated dose toxicity
Sodium bromide	Workers	Dermal	47.6 mg/kg	Acute toxicity
	General population	Dermal	83.3 mg/cm2	Acute toxicity
	General population	Dermal	0.475 mg/kg	Repeated dose toxicity
	General population	Inhalation	147 mg/m3	Acute toxicity
	General population	Inhalation	1.66 mg/m3	Repeated dose toxicity
	General population	Inhalation	0.475 mg/m3	Repeated dose toxicity
	Workers	Dermal	1.7 mg/cm2	Repeated dose toxicity
	Workers	Inhalation	4.75 mg/m3	Repeated dose toxicity
	General population	Dermal	33.3 mg/kg	Acute toxicity
	Workers	Inhalation	420 mg/m3	Acute toxicity
	Workers	Dermal	119 mg/cm2	Acute toxicity
	General population	Oral	42 mg/kg	Acute toxicity
	General population	Inhalation	147 mg/m3	Acute toxicity
	Workers	Inhalation	420 mg/m3	Acute toxicity
	General population	Oral	0.475 mg/kg	Repeated dose toxicity
	General population	Dermal	1.19 mg/cm2	Repeated dose toxicity
	Workers	Dermal	0.68 mg/kg	Repeated dose toxicity
	Workers	Inhalation	4.75 mg/m3	Repeated dose toxicity
Potassium sulphite	General population	Oral	14 mg/kg	Repeated dose toxicity
	General population	Inhalation	111 mg/m3	Repeated dose toxicity
	Workers	Inhalation	374 mg/m3	Repeated dose toxicity
EDTA-tetrasodium salt	General population	Oral	25 mg/kg	Repeated dose toxicity
	Workers	Inhalation	2.5 mg/m3	Repeated dose toxicity
	General population	Inhalation	1.5 mg/m3	Repeated dose toxicity
	General population	Inhalation	1.5 mg/m3	Repeated dose toxicity
	Workers	Inhalation	2.5 mg/m3	Repeated dose toxicity
Potassium hydroxide	Workers	Inhalation	1 mg/m3	Irritating to respiratory system.
	General population	Inhalation	1 mg/m3	Irritating to respiratory system.

PNEC-Values

Critical component	Environmental compartment		Remarks
Sodium metaphosphate	Aquatic (intermit. releases)	1 mg/l	
	Sewage treatment plant	100 mg/l	
	Aquatic (freshwater)	0.1 mg/l	
	Aquatic (marine water)	0.01 mg/l	
Sodium bromide	Aquatic (freshwater)	0.15 mg/l	
	Aquatic (intermit. releases)	0.208 mg/l	
	Aquatic	0.12 mg/kg	

	Sewage treatment plant	100 mg/l	
	Predator	3.33333 mg/kg	
	Aquatic (marine water)	0.075 mg/l	
	Aquatic	0.06 mg/kg	
	soil	3.2 mg/kg	
Potassium sulphite	Aquatic (freshwater)	1.67 mg/l	
	Aquatic (marine water)	0.17 mg/l	
	Sewage treatment plant	125.5 mg/l	
EDTA-tetrasodium salt	soil	0.72 mg/kg	
	Aquatic (marine water)	0.22 mg/l	
	Aquatic (freshwater)	2.2 mg/l	
	Aquatic (intermit. releases)	1.2 mg/l	
	Sewage treatment plant	43 mg/l	

8.2 Exposure controls

Appropriate Engineering Controls: Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

General information: Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Follow training instructions when handling this material.

Eye/face protection: Safety goggles. EN 166.

Skin protection

Hand Protection: Protective gloves should be used if there is a risk of direct contact or splash.(EN374) Chemical resistant gloves required for prolonged or repeated contact. Butyl rubber. Glove thickness: > 0.70 mm Break-through time: > 480 min Risk of splashes: Nitrile rubber. Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Other: Safety clothes : long sleeved clothing EN13688

Respiratory Protection: In case of inadequate ventilation use suitable respirator (EN14387). Seek advice from local supervisor.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

Environmental Controls: Do not empty into drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Pale yellow
Odor:	Odorless
Odor Threshold:	No data available.
pH:	11.2 (25 °C)
Freezing point:	< 0 °C
Boiling Point:	> 100 °C
Flash Point:	No data available.
Evaporation Rate:	No data available.
Flammability (solid, gas):	No data available.
Flammability Limit - Upper (%):	No data available.
Flammability Limit - Lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density (air=1):	No data available.
Relative density:	1.126 (20 °C)
Solubility(ies)	
Solubility in Water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Autoignition Temperature:	No data available.
Decomposition Temperature:	No data available.
Viscosity:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity:	Material is stable under normal conditions.
10.2 Chemical Stability:	Material is stable under normal conditions.
10.3 Possibility of hazardous reactions:	Not known.
10.4 Conditions to avoid:	Avoid heat or contamination.

10.5 Incompatible Materials: None known.

10.6 Hazardous Decomposition Products: By heating and fire, harmful vapors/gases may be formed.

SECTION 11: Toxicological information

Information on likely routes of exposure

Inhalation: Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.

Ingestion: May be ingested by accident. Ingestion may cause irritation and malaise.

Skin Contact: Moderately irritating to skin with prolonged exposure.

Eye contact: Eye contact is possible and should be avoided.

11.1 Information on toxicological effects

Acute toxicity

Oral

Product: Not classified for acute toxicity based on available data.

Specified substance(s)

Potassium carbonate LD 50 (Rat): > 2,000 mg/kg

Dipotassium disulphite LD 50 (Rat): > 2,000 mg/kg

4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one
No data available.

Dermal

Product: Not classified for acute toxicity based on available data.

Specified substance(s)

Potassium carbonate LD 50 (Rabbit): > 2,000 mg/kg

Dipotassium disulphite LD 50 (Rat): > 2,000 mg/kg

4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one
No data available.

Inhalation

Product: Not classified for acute toxicity based on available data.

Specified substance(s)

Potassium carbonate LC 50 (Rat, 4.5 h): > 4.96 mg/l

Dipotassium disulphite LC 50 (Rat): > 5.5 mg/l

4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one No data available.

Repeated dose toxicity

Product: No data available.

Specified substance(s)

Potassium carbonate NOAEL (Rat(Male), Oral, 130 Weeks): 2,667 mg/kg
NOAEL (Rat(Female), Oral, 130 Weeks): 3,331 mg/kg
NOAEL (Rat(Female, Male), Inhalation): 0.4 mg/l
Dipotassium disulphite NOAEL (Rat(Female), Oral, 8 Weeks): 70 mg/kg
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one No data available.

Skin Corrosion/Irritation:

Product: No data available.

Specified substance(s)

Potassium carbonate Irritating
Dipotassium disulphite in vivo (Rabbit): Not irritant Read-across from supporting substance (structural analogue or surrogate), Key study
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one No data available.

Serious Eye Damage/Eye Irritation:

Product: Causes serious eye damage.

Specified substance(s)

Potassium carbonate Irritating
Dipotassium disulphite in vivo (Rabbit, 24 - 72 hrs): Category 1 EU
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one No data available.

Respiratory or Skin Sensitization:

Product: No data available.

Specified substance(s)

Potassium carbonate No data available.
Dipotassium disulphite No data available.

4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one No data available.

Germ Cell Mutagenicity

In vitro

Product: No data available.

Specified substance(s)

Potassium carbonate No data available.
Dipotassium disulphite No data available.
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one No data available.

In vivo

Product: No data available.

Specified substance(s)

Potassium carbonate No data available.
Dipotassium disulphite No data available.
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one No data available.

Carcinogenicity

Product: No data available.

Specified substance(s)

Potassium carbonate No data available.
Dipotassium disulphite No data available.
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one No data available.

Reproductive toxicity

Product: No data available.

Specified substance(s)

Potassium carbonate No data available.
Dipotassium disulphite No data available.
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specified substance(s)

Potassium carbonate	No data available.
Dipotassium disulphite	No data available.
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one	No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Specified substance(s)

Potassium carbonate	No data available.
Dipotassium disulphite	No data available.
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one	No data available.

Aspiration Hazard

Product: No data available.

Specified substance(s)

Potassium carbonate	No data available.
Dipotassium disulphite	No data available.
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one	No data available.

SECTION 12: Ecological information

12.1 Toxicity

Acute toxicity

Fish

Product: No data available.

Specified substance(s)

Potassium carbonate	LC 50 (Oncorhynchus mykiss, 96 h): 68 mg/l (flow-through) experimental result NOAEL (Oncorhynchus mykiss, 96 h): 33 mg/l (flow-through) experimental result
Dipotassium disulphite	LC 50 (Danio rerio, 96 h): 464 - 1,000 mg/l (Static) Experimental result, Supporting study
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one	No data available.

Aquatic Invertebrates

Product: No data available.

Specified substance(s)

Potassium carbonate	EC 50 (48 h): 200 mg/l (Static) experimental result NOAEL (48 h): 120 mg/l (Static) experimental result
Dipotassium disulphite	EC 50 (Daphnia magna, 48 h): 89 mg/l (Static) Read-across from supporting substance (structural analogue or surrogate), Key study
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one	No data available.

Chronic Toxicity

Fish

Product: No data available.

Specified substance(s)

Potassium carbonate	No data available.
Dipotassium disulphite	NOAEL (Danio rerio, 34 d): >= 316 mg/l (flow-through) Read-across from supporting substance (structural analogue or surrogate), Key study
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one	No data available.

Aquatic Invertebrates

Product: No data available.

Specified substance(s)

Potassium carbonate	No data available.
Dipotassium disulphite	No data available.
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one	No data available.

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s)

Potassium carbonate	No data available.
Dipotassium disulphite	No data available.
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one	No data available.

12.2 Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s)

Potassium carbonate	No data available.
Dipotassium disulphite	No data available.

4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one No data available.

BOD/COD Ratio

Product No data available.

Specified substance(s)

Potassium carbonate No data available.
Dipotassium disulphite No data available.
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one No data available.

12.3 Bioaccumulative Potential

Product: No data available.

Specified substance(s)

Potassium carbonate No data available.
Dipotassium disulphite No data available.
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one No data available.

12.4 Mobility in Soil:

No data available.

Known or predicted distribution to environmental compartments

Potassium carbonate No data available.
Dipotassium disulphite No data available.
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one No data available.

12.5 Results of PBT and vPvB assessment:

Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria Not fulfilling vPvB (very persistent/very bioaccumulative) criteria

Potassium carbonate No data available.
Dipotassium disulphite No data available.
4-(Hydroxymethyl)-4-methyl-1-phenylpyrazolidin-3-one No data available.

12.6 Other Adverse Effects:

No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

General information:

Disposal considerations (including disposal of contaminated containers or packaging) Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Disposal methods: Wash before disposal. Dispose to controlled facilities.

Since emptied containers retain product residue, follow label warnings even after container is emptied.

SECTION 14: Transport information

ADR

14.1 UN Number:	Not regulated.
14.2 UN Proper Shipping Name:	Not regulated.
14.3 Transport Hazard Class(es)	Not regulated.
14.4 Packing Group:	Not regulated.
14.5 Environmental Hazards:	Not regulated.
14.6 Special precautions for user:	Not regulated.

RID

14.1 UN Number:	Not regulated.
14.2 UN Proper Shipping Name:	Not regulated.
14.3 Transport Hazard Class(es)	Not regulated.
14.4 Packing Group:	Not regulated.
14.5 Environmental Hazards:	Not regulated.
14.6 Special precautions for user:	Not regulated.

IMDG

14.1 UN Number:	Not regulated.
14.2 UN Proper Shipping Name:	Not regulated.
14.3 Transport Hazard Class(es)	Not regulated.
14.4 Packing Group:	Not regulated.
14.5 Environmental Hazards:	Not regulated.
14.6 Special precautions for user:	Not regulated.

IATA

14.1 UN Number:	Not regulated.
14.2 UN Proper Shipping Name:	Not regulated.
14.3 Transport Hazard Class(es)	Not regulated.
14.4 Packing Group:	Not regulated.
14.5 Environmental Hazards:	Not regulated.
14.6 Special precautions for user:	Not regulated.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: not applicable.

SECTION 15: Regulatory information

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

EU Regulations

Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer: none

Regulation (EC) No. 850/2004 on persistent organic pollutants: none

Regulation (EC) No. 689/2008 Import and export of dangerous chemicals: none

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended:
none

Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use:
none

Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.: none

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding.: none

Directive 96/82/EC (Seveso III): on the control of major accident hazards involving dangerous substances: none

EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants:
none

Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:

Chemical name	CAS-No.	Concentration
EDTA-tetrasodium salt	64-02-8	0.1 - 1.0%
Potassium hydroxide	1310-58-3	0 - <0.1%

15.2 Chemical safety assessment:

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Revision Information: Not relevant. Not relevant.

Key literature references and sources for data: Safety Data Sheet from the supplier.
ECHA

Wording of the H-statements in section 2 and 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.
H411 Toxic to aquatic life with long lasting effects.

Training information: No data available.

Classification according to Regulation (EC) No 1272/2008 as amended.

Eye Dam. 1, H318

Issue Date: 20.09.2016

SDS No.:

Disclaimer:

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.