

Safety Data Sheet

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1. Identification of the substance/mixture and of the company/undertaking

Product name: Kodak Rapid Fixer with Hardener, Part B

Product code: 1464114 - Part B

Synonyms: PCD F1720

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

Identified uses: photographic processing chemical (fixer). For industrial use only.

Supplier: Environment, Eastman Kodak Company, Rochester, NY 14652-6267. Columbia, V5G 4P5, Canada. MSDS prepared by Health, Safety and United States; KODAK CANADA INC., 4225 Kincaid Street, Burnaby, British EASTMAN KODAK COMPANY, 343 State Street, Rochester, New York 14650,

call: 1-800-363-1024. For Emergency Health, Safety & Environmental Information,

For Other Information, call the Marketing and Distribution Center in Your Area.

2. Hazards identification

Classification of chemical in accordance with WHMIS 2015:

Hazard class	Hazard category	Route of exposure
Corrosive to metals	Category 1	--
Skin corrosion/irritation	Category 1A	--
Serious eye damage/eye irritation	Category 1	--

GHS-Labeling

Contains:

Aluminium sulphate (10043-01-3), Sulphuric acid (7664-93-9)

Symbol(s):



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Signal word: Danger

Hazard statements: May be corrosive to metals. Causes severe skin burns and eye damage.

Precautionary statements:

Prevention: Keep only in original container. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wash thoroughly after handling.

Response: Absorb spillage to prevent material damage. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash contaminated clothing before reuse. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Storage: Store in corrosive resistant container with resistant inliner.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulation.

HMIS III Hazard Ratings: Health - 3, Flammability - 0, Physical Hazard - 0

NFPA Hazard Ratings: Health - 3, Flammability - 0, Instability - 0

NOTE: HMIS III and NFPA 704 (2007) hazard indexes involve data review and interpretation that may vary among companies. They are intended only for rapid, general identification of the magnitude of the potential hazards. To adequately address safe handling, ALL information in this MSDS must be considered.

3. Composition/information on ingredients

Weight percent	Components - (CAS-No.)
15 - 20	Aluminium sulphate (10043-01-3)
5 - < 15	Sulphuric acid (7664-93-9)

4. First aid measures

Inhalation: If inhaled, remove to fresh air. Get medical attention.

Eyes: Immediately flush the contaminated eye(s) with water for at least 60 minutes, while holding the eyelid(s) open. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens.

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Neutral saline solution may be used as soon as it is available. **DO NOT INTERRUPT FLUSHING.** Contact a physician or poison control center immediately. Continue flushing the eye(s) until the physician advises to stop. If necessary, continue flushing during transport to an emergency care facility.

Skin: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash contaminated clothing before re-use. Destroy or thoroughly clean contaminated shoes.

Ingestion: If swallowed, only induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed: No information available.

Indication of any immediate medical attention and special treatment needed:

Treatment: No information available.

5. Firefighting measures

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

Special hazards arising from the substance or mixture

Hazardous Combustion Products: None (noncombustible), (see also Hazardous Decomposition Products sections.)

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective suit. Fire or excessive heat may produce hazardous decomposition products.

Unusual Fire and Explosion Hazards: None.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Refer to protective measures listed in sections 7 and 8.

Methods and materials for containment and cleaning up: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Prevent runoff from entering drains, sewers, or streams.

Environmental precautions: No information available.

7. Handling and storage

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Precautions for safe handling

Personal precautions: Do not get in eyes, on skin, or on clothing. Do not breathe vapours or spray mist. Use only with adequate ventilation. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Prevention of Fire and Explosion: Keep from contact with oxidizing materials.

Ventilation: Match ventilation rates to conditions of use so as not to exceed any applicable exposure limits (see Section 8).

Conditions for safe storage, including any incompatibilities: Keep in a dry, cool and well-ventilated place. Cool conditions (5 - 30°C). Keep container tightly closed. Keep away from food, drink and animal feeding stuffs. Keep away from incompatible substances (see Incompatibility section.)

8. Exposure controls/personal protection

Occupational exposure controls

Chemical name	Regulatory List	Value Type	Value
Sulphuric acid	ACGIH	Time weighted average	0.2 mg/m ³
			<i>Form of exposure: thoracic particulate matter</i>
Sulphuric acid	OSHA	Time weighted average	1 mg/m ³
	ACGIH	Time weighted average	0.2 mg/m ³
			<i>Form of exposure: thoracic particulate matter</i>
	OSHA	Time weighted average	1 mg/m ³

Appropriate engineering controls: Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. Controls should be sufficient so that applicable occupational exposure limits are not exceeded.

Individual protection measures, such as personal protective equipment

Eye protection: Wear safety glasses with side shields (or goggles) and a face shield.

Hand protection: Wear protective gloves/ protective clothing.

Respiratory protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. If respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial, or local laws and regulations.

9. Physical and chemical properties

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Physical form: liquid

Colour: colourless

Odour: slight sulphur

Specific gravity: 1.30

Vapour pressure (at 20.0 °C (68.0 °F)): 24 mbar (18.0 mm Hg)

Vapour density: 0.6

Boiling point/boiling range: > 100.0 °C (212.0 °F)

Water solubility: complete

pH: 1

Flash point: does not flash

Evaporation rate: No data available

Flammability (Solid; gas): No data available

Upper explosion limit: No data available

Lower explosion limit: No data available

Partition coefficient: n-octanol/water: No data available

Auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

10. Stability and reactivity

Reactivity: No data available

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Chemical stability: Stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerisation does not occur.

Conditions to avoid: No data available

Incompatible materials: Bases, Metals.

Hazardous decomposition products: Sulphur oxides

11. Toxicological information

Effects of Exposure

General advice:

Contains: Aluminium sulphate. Ingestion may cause nausea, vomiting, abdominal pains, and diarrhea.

Contains: Sulphuric acid. International Agency for Research on Cancer (IARC) has determined that occupational exposure to strong inorganic mists or vapours containing sulfuric acid is carcinogenic to humans. Acute overexposure to extremely high airborne concentrations of respiratory irritants has been associated with development of an asthma-like reactive airways syndrome (RADS) in susceptible individuals. The following exposure effects are based on pH of the solution, concentration of the base, and a review of the literature.

Inhalation: Airborne dust/mist/vapor may be irritating.

Eyes: Causes serious eye damage.

Skin: Causes severe skin burns.

Ingestion: May cause burns of the gastrointestinal tract if swallowed.

Acute Toxicity Data:

- Skin irritation: Corrosive
- Eye irritation: Corrosive

Data for Aluminium sulphate (CAS 10043-01-3):

Acute Toxicity Data:

Oral LD50 (Mouse): 6,207 mg/kg

- Oral LD50 (Rat): 1,930 mg/kg
- Skin irritation: No skin irritation
- Eye irritation: severe

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Mutagenicity/Genotoxicity Data:

- Cell transformation assay: negative

Data for Sulphuric acid (CAS 7664-93-9):

Acute Toxicity Data:

Oral LD50 (Rat): 2,140 mg/kg

- Inhalation LC50 (Mouse): 0.85 mg/l / 4 hr
- Dermal LD50: > 36,600 mg/kg
- Skin irritation: Extremely corrosive and destructive to tissue.
- Eye irritation: Corrosive

Carcinogenicity

American Conference of Governmental Industrial Hygienists (ACGIH):	A2 - Suspected Human Carcinogen: Sulphuric acid
International Agency for Research on Cancer (IARC):	Group 1 - Carcinogenic to Humans: Sulphuric acid
U.S. National Toxicology Program (NTP):	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
U.S. Occupational Safety and Health Administration (OSHA):	OSHA Carcinogen or Potential Carcinogen: Sulphuric acid
California Prop. 65	This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

12. Ecological information

The following properties are ESTIMATED from the components of the preparations.

Potential Toxicity:

Toxicity to fish (LC50): > 100 mg/l estimated

Toxicity to daphnia (EC50): > 100 mg/l estimated

Persistence and degradability: Not readily biodegradable.

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This preparation has not been tested for environmental effects.

Bioaccumulative potential

No data available

Mobility in soil

No information available.

13. Disposal considerations

Discharge, treatment, or disposal may be subject to federal, state, commonwealth, provincial, or local laws. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

The information below is provided to assist in documentation. It represents the dangerous goods classification before any regulatory exceptions are taken (e.g. "limited quantity") and therefore may not represent the final classification. The final classification as it pertains to the product packaging configuration (including labeling, marking, and exceptions) may be obtained via the Dangerous Goods Worksheet which can be found at www.kodak.com/go/ship.

IATA:	UN number:	UN3264
	Proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Sulphuric acid, aluminum sulphate)
	Class:	8
	Packaging group:	III
IMDG:	UN number:	UN3264
	Proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Sulphuric acid, aluminum sulphate)
	Class:	8
	Packaging group:	III
TDG:	UN number:	UN3264
	Proper shipping name:	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Sulphuric acid, aluminum sulphate)
	Class:	8
	Packaging group:	III
	Marine Pollutant status:	Marine pollutant
US DOT:	UN number:	UN3264

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Proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
(Sulphuric acid, aluminum sulphate)
Class: 8
Packaging group: III

For more transportation information, go to: www.kodak.com/go/ship.

15. Regulatory information

Notification status

Regulatory List	Notification status
TSCA	All listed
DSL	All listed
NDSL	None listed
EINECS	All listed
ELINCS	None listed
NLP	None listed
AICS	All listed
IECS	All listed
ENCS	All listed
ECI	All listed
NZIoC	All listed
PICCS	All listed
TCSI	All listed

"Not all listed" indicates one or more component is either not on the public Inventory or is subject to exemption requirements. If additional information is needed contact Kodak.

Other regulations

U.S. - CERCLA/SARA (40 CFR § 302.4 Designation of hazardous substances):	Aluminium sulphate , Sulphuric acid
U.S. - CERCLA/SARA - Section 302 (40 CFR § 355 Appendices A and B - The List of Extremely Hazardous Substances and Their Threshold Planning Quantities):	Sulphuric acid

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U.S. - CERCLA/SARA - Section 313 (40 CFR § 372.65 Toxic Chemical Release Reporting):	Sulphuric acid
U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances:	Aluminium sulphate , Sulphuric acid
U.S. - California - 8 CCR Section 5200-5220 - Specifically Regulated Carcinogens:	No components found on the California Specifically Regulated Carcinogens List.
U.S. - California - 8 CCR Section 5203 Carcinogens:	No components found on the California Section 5203 Carcinogens List.
U.S. - California - 8 CCR Section 5209 Carcinogens:	No components found on the California Section 5209 Carcinogens List.
U.S. - Massachusetts - General Law Chapter 111F (MGL c 111F) - Hazardous Substances Disclosure by Employers (a.k.a. Right to Know Law):	Aluminium sulphate , Sulphuric acid
U.S. - Minnesota Employee Right-to-Know (5206.0400, Subpart 5. List of Hazardous Substances):	Aluminium sulphate , Sulphuric acid
U.S. - New Jersey - Worker and Community Right to Know Act (N.J.S.A. 34:5A-1):	Aluminium sulphate , Sulphuric acid
U.S. - Pennsylvania - Part XIII. Worker and Community Right-to-Know Act (Chapter 323 Hazardous Substance List, Appendix A):	Water , Aluminium sulphate , Sulphuric acid

16. Other information

The data below reflects current legislative requirements whereas the product in your possession may carry a different version of the label depending on the date of manufacture.

US/Canadian Label Statements:

Kodak Rapid Fixer with Hardener, Part B

Contains:

Aluminium sulphate (10043-01-3), Sulphuric acid (7664-93-9)

Symbol(s):

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Storage: Store in corrosive resistant container with resistant inliner.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulation.

The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment. The information relating to the working solution is for guidance purposes only, and is based on correct mixing and use of the product according to instructions.

R-2, S-3, F-0, C-0