SAFETY DATA SHEET

KODAK PROFESSIONAL D-76 Developer Powder

SECTION 1: IDENTIFICATION

1.1. Product identifier

▼Trade name: KODAK PROFESSIONAL D-76 Developer Powder
Obtain special instructions before use.

Product no.: 5160304

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

Relevant identified uses of the substance or mixture: Photographic chemical (developer/activator) for black and white 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

Contact person: Jake Bolt

E-mail: jake@photosys.com

SDS date: 7/24/2024

SDS Version: 2.0

Date of previous version: 7/24/2024 (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”.

SECTION 2: HAZARD(S) IDENTIFICATION

OSHA/HCS status

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

2.1. Classification of the substance or mixture

Acute Tox. 4; H302, Harmful if swallowed.

Skin Sens. 1; H317, May cause an allergic skin reaction.
Eye Dam. 1; H318, Causes serious eye damage.
Muta. 2; H341, Suspected of causing genetic defects.
Carc. 2; H351, Suspected of causing cancer.
Repr. 1B; H360, May damage fertility or the unborn child.
Repr. 1B; H360FD, May damage fertility. May damage the unborn child.
STOT RE 2; H373, May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements

Hazard pictogram(s):



Signal word: Danger

Hazard statement(s):
Harmful if swallowed. (H302)
May cause an allergic skin reaction. (H317)
Causes serious eye damage. (H318)
Suspected of causing genetic defects. (H341)
Suspected of causing cancer. (H351)
May damage fertility or the unborn child. (H360)
May damage fertility. May damage the unborn child. (H360FD)
May cause damage to organs through prolonged or repeated exposure. (H373)

Precautionary statement(s):

General:
If medical advice is needed, have product container or label at hand. (P101)
Keep out of reach of children. (P102)

Prevention:
Obtain special instructions before use. (P201)
Do not breathe dust. (P260)
Wash hands and exposed skin thoroughly after handling. (P264)
Do not eat, drink or smoke when using this product. (P270)
Wear eye protection/protective gloves/protective clothing. (P280)

Response:
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. (P301+P312)
IF ON SKIN: Wash with plenty of water and soap. (P302+P352)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
IF exposed or concerned: Get medical advice/attention. (P308+P313)
Immediately call a POISON CENTER/doctor. (P310)
Get medical advice/attention if you feel unwell. (P314)
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 locked up. (P405)

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

Additional labelling: Not applicable.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Sodium Sulfite	CAS No.: 7757-83-7	80-95%		
hydroquinone	CAS No.: 123-31-9	3-5%	Acute Tox. 4, H302 Skin Sens. 1B, H317 Eye Dam. 1, H318 Muta. 2, H341 Carc. 2, H351	
Borax Pentahydrate	CAS No.: 12179-04-3	1-3%	Eye Irrit. 2, H319 Repr. 1B, H360 (SCL: 6.50 %)	
bis(4-hydroxy-N-methylanilinium) sulphate	CAS No.: 55-55-0	1-3%	Acute Tox. 4, H302 Skin Sens. 1, H317 STOT RE 2, H373	
diboron trioxide	CAS No.: 1303-86-2	1-3%	Eye Irrit. 2, H319 Acute Tox. 4, H332 Repr. 1B, H360FD	
Diethylenetriaminepenta acetic acid	CAS No.: 67-43-6	<1%	Eye Irrit. 2, H319 Acute Tox. 4, H332 STOT RE 2, H373	

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

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

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

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

Burns: Not applicable.

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

Headache, Methaemoglobinaemia (hydroquinone)
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.
The product contains substances that cause serious eye damage. Contact with these substances can cause irreversible effects on the eye / serious eye damage.
High amounts of dust can cause coughing and general irritation of the respiratory airways.

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.
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.
No unusual fire or explosion hazards noted

5.2. Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed. Hazardous decomposition products are carbon and 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.

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. In the event of leakage to the surroundings, contact local environmental authorities.

6.3. Methods and material for containment and cleaning up

Collect spills carefully. Moist the material with water in order to prevent the formation and propagation of dust.
Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See Section 8 "Exposure controls/personal protection" for information on personal protection.
See Section 13 "Disposal considerations" on handling of waste.

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.
Powder trickling out onto the floor or onto other containers must be prevented.

Recommended storage material:	Keep only in original packaging.
Storage temperature:	Dry, cool and well ventilated
Incompatible materials:	Strong 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
hydroquinone
Long term exposure limit (OSHA Table Z-1) (mg/m^3): 2
Long term exposure limit (ACGIH TLV) (mg/m^3): 1
Ceiling value (NIOSH REL) (mg/m^3): 2 [15-min]

Borax Pentahydrate
Short term exposure limit (STEL) (ACGIH TLV) (ppm): 5
Long term exposure limit (OSHA Table Z-1) (mg/m^3): 10
Long term exposure limit (NIOSH REL) (mg/m^3): 5

diboron trioxide
Long term exposure limit (OSHA Table Z-1) (mg/m^3): 15 (total dust)
Long term exposure limit (ACGIH TLV) (mg/m^3): 10 Total dust
Long term exposure limit (NIOSH REL) (mg/m^3): 10 (Total dust)

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 uses. 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:	Do not recirculate outlet air that contain the substances. Apply standard precautions during use of the product. Avoid inhalation of gas or dust. Airborne gas and dust concentrations 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 emergency eyewash and showers are clearly marked. Ensure that eyewash stations and safety showers are located within easy reach. Airborne gas and dust concentrations must be kept at a minimum. Provide efficient mechanical ventilation. If not

possible use suitable respiratory equipment.

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	
SL	P3	White	EN149	

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: Powder

Colour: White

Odour: None

Odour threshold (ppm): Not applicable

pH: Not applicable - product is a solid

Density (g/cm^3): Not applicable - product is a solid

Relative density: Not applicable - product is a solid

Kinematic viscosity:	No data available
Particle characteristics:	No data available

Phase changes

Melting point (°F):	No data available
Softening point/range (°F):	Does not apply to solids.
Boiling point (°F):	Not applicable - product is a solid
Vapour pressure:	Not applicable - product is a solid
Relative vapour density:	Not applicable - product is a solid
Decomposition temperature (°F):	No data available

Data on fire and explosion hazards

Flash point (°F):	Not applicable
Flammability (°F):	The material is not combustible.
Auto-ignition temperature (°F):	No data available
Explosion limits (% v/v):	Does not apply to solids.

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):	Not applicable - product is a solid
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
None known.

10.5. Incompatible materials
Incompatible with strong acids which may liberate Sulphur dioxide.

10.6. Hazardous decomposition products

Sulfur oxides

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Harmful if swallowed.

Skin corrosion/irritation

Prolonged skin contact may cause temporary irritation.
May cause an allergic reaction.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory sensitisation

Based on available data, the classification criteria are not met.
Not a respiratory sensitizer.

Skin sensitisation

May cause an allergic skin reaction.

Germ cell mutagenicity

Suspected of causing genetic defects.

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

May damage fertility or the unborn child.
May damage fertility. May damage the unborn child.

STOT-single exposure

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

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

Long term effects: Skin - This product contains substance which can cause skin irritation or allergic skin reaction. Inhalation may cause irritation to the respiratory system. In contact with strong acids or if heated, sulphites may liberate sulphur dioxide gas which is irritating to the respiratory tract. Some asthmatics or sulfite-sensitive individuals may experience difficulty breathing. Eye contact causes serious eye irritation.

Group 3: The agent is not classifiable as to its carcinogenicity to humans This category is used most commonly when the evidence of carcinogenicity in humans is inadequate, the evidence of carcinogenicity in experimental animals is limited (or inadequate), and the mechanistic evidence is limited (or inadequte).

Other information

hydroquinone has been classified by IARC as a group 3 carcinogen.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Very toxic to aquatic life with long lasting effects. (Hydroquinone (Cas 123-31-9)

12.2. Persistence and degradability
Readily biodegradable

12.3. Bioaccumulative potential
Partial coefficient n-octanol/water (log/Kow) for Hydroquinone 0.59

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 warning 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	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	Transport hazard class: 9 Label: 9 Classification code: M7 	III	No	Limited quantities: 5 kg Tunnel restriction code: (-) See below for additional information.
IMDG	UN3077	ENVIRONMENTALLY HAZARDOUS	Transport hazard class: 9	III	No	Limited

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
		SUBSTANCE, SOLID, N.O.S.	Label: 9 Classification code: M7 			quantities: 5 kg EmS: F-A S-F See below for additional information.
IATA	UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	Transport hazard class: 9 Label: 9 Classification code: M7 	III	No	See below for additional information.

* Packing group

** Environmental hazards

Additional information

LIMITED QUANTITY EXEMPTION - KODAK CAT# 1058270 - this package contains 415 g or 0.415 Kg. to make 3.8 L of solution or 1 U.S. Gallon. Packaged 10 bags to a case. Exemption is for quantities up to 5kg solids. See CFR 49 (173.155.b2). 5kg.
Although this product is environmentally hazardous, the environmentally hazardous substance mark has been omitted as the product is supplied in packaging with a maximum quantity of 5 L / 5 kg.
-
DOT / See § 172.101 Hazardous Materials Table for any information on special provisions, requirements, or warnings in connection with transport. See § 172.602, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.
IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.
IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.
This product is within scope of the regulations of transport of dangerous goods.

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):

Sodium Sulfite is listed
hydroquinone is listed
bis(4-hydroxy-N-methylanilinium) sulphate is listed
diboron trioxide is listed

	Diethylenetriaminepentaacetic acid is listed
Clean Air Act:	hydroquinone is regulated as a hazardous air pollutant (HAPS)
EPCRA Section 302:	hydroquinone is regulated with a Treshold Planning Quantity (TPQ) of: 500/10000 pounds
EPCRA Section 304:	hydroquinone is regulated with a Reportable Quantity (RQ) of: 100 pounds
EPCRA section 313:	hydroquinone is listed
CERCLA:	hydroquinone is regulated with a Reportable Quantity (RQ) of: 100 pounds

State regulations

California / Prop. 65:	None of the components are listed
Massachusetts / Right To Know Act:	Borax Pentahydrate is listed diboron trioxide is listed
New Jersey / Right To Know Act:	hydroquinone / Substance number: 1019 __ Borax Pentahydrate / Substance number: __ diboron trioxide / Substance number: 0243 __
New York / Right To Know Act:	hydroquinone is listed hydroquinone is regulated with a Reportable Quantity (RQ) of: 1 pounds hydroquinone is regulated with a Treshold Reporting Quantity (TRQ) of: 0 pounds hydroquinone is regulated with a Treshold Planning Quantity (TPQ) of: 500*/10000 pounds *Quantity applies if the substance is present in the form of a fine powder (particle size less than 100 microns), molten or in solution, or reacts with water. __ diboron trioxide is listed diboron trioxide is regulated with a Treshold Reporting Quantity (TRQ) of: 100 pounds __
Pennsylvania / Right To Know Act:	hydroquinone is listed hydroquinone is hazardous to the environment (E) __ Borax Pentahydrate is listed __ diboron trioxide is listed __

NFPA

Health hazard: 3
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
H302, Harmful if swallowed.
H317, May cause an allergic skin reaction.
H318, Causes serious eye damage.
H319, Causes serious eye irritation.
H332, Harmful if inhaled.
H341, Suspected of causing genetic defects.
H351, Suspected of causing cancer.
H360, May damage fertility or the unborn child.
H360FD, May damage fertility. May damage the unborn child.
H373, May cause damage to organs through prolonged or repeated exposure.

The full text of identified uses as mentioned in section 1
None known.

Abbreviations and acronyms
ACGIH = American Conference of Governmental Industrial Hygienists
ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
CAS = Chemical Abstracts Service
CERCLA = Comprehensive Environmental Response Compensation and Liability Act
DOT = Department of Transportation
EINECS = European Inventory of Existing Commercial chemical Substances
EPCRA = Emergency Planning and Community Right-To-Know Act
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
HCIS = Hazardous Chemical Information System
HNOC = Hazards Not Otherwise Classified
IARC = International Agency for Research on Cancer
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

NFPA = National Fire Protection Association
NIOSH = National Institute for Occupational Safety and Health
OECD = Organisation for Economic Co-operation and Development
OSHA = Occupational Safety and Health Administration
PBT = Persistent, Bioaccumulative and Toxic
RCRA = Resource Conservation and Recovery Act
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail
RRN = REACH Registration Number
SARA = Superfund Amendments and Reauthorization Act
SCL = A specific concentration limit.
STEL = Short-term exposure limits
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure
STOT-SE = Specific Target Organ Toxicity - Single Exposure
TSCA = The Toxic Substances Control Act
TWA = Time weighted average
UN = United Nations
UVBC = Unknown or variable composition, complex reaction products or of biological materials
VOC = Volatile Organic Compound
vPvB = Very Persistent and Very Bioaccumulative

Additional information

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

The safety data sheet is validated by

Validated by Photo Systems Inc./cf

Other

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