# SAFETY DATA SHEET

# KODAK PROFESSIONAL T-Max Developer

## SECTION 1: IDENTIFICATION

### 1.1. Product identifier

| | |
|---|---|
| **Trade name:** | KODAK PROFESSIONAL T-Max Developer |
| **Product no.:** | 1058718 |
| **▼Document number:** | Obtain special instructions before use. |

### 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.**<br>7190 Huron River Drive<br>MI 48130 Dexter<br>USA<br>Tel: +1 (734) 424-9625<br>Fax: +1-734-580-2199<br>www.photosys.com<br><br>For further information about this product email EHS-Questions @photosys.com |
| **Manufacturer:** | **Photo Systems Inc.**<br>7190 Huron River Drive<br>MI 48130 Dexter<br>USA<br>Tel: +1 (734) 424-9625<br>Fax: +1-734-580-2199<br>www.photosys.com |
| **Contact person:** | Jake Bolt |
| **E-mail:** | jake@photosys.com |
| **SDS date:** | 2/22/2024 |
| **SDS Version:** | 2.0 |
| **Date of previous version:** | 10/11/2023 (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

Skin Irrit. 2; H315, Causes skin irritation.
Eye Irrit. 2; H319, Causes serious eye irritation.
Muta. 2; H341, Suspected of causing genetic defects.
Carc. 2; H351, Suspected of causing cancer.

### 2.2. Label elements

**▼Hazard pictogram(s):**

**▼Signal word:** Warning

**▼Hazard statement(s):**

Causes skin irritation. (H315)
Causes serious eye irritation. (H319)
Suspected of causing genetic defects. (H341)
Suspected of causing cancer. (H351)

**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)
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 exposed or concerned: Get medical advice/attention. (P308+P313)
If eye irritation persists: Get medical advice/attention. (P337+P313)

**Storage:** Store locked up. (P405)

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

**Additional labelling:** Not applicable.

### 2.3. Other hazards

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

## 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 Sulfite Solution 45% | CAS No.: 10117-38-1 | 10-15% | | |
| 2,2'-oxydiethanol | CAS No.: 111-46-6 | 1-3% | Acute Tox. 4, H302 | |
| hydroquinone | CAS No.: 123-31-9 | 1-3% | Acute Tox. 4, H302<br>Skin Sens. 1B, H317<br>Eye Dam. 1, H318<br>Muta. 2, H341<br>Carc. 2, H351 | |
| Borax Pentahydrate | CAS No.: 12179-04-3 | 1-3% | Eye Irrit. 2, H319<br>Repr. 1B, H360 (SCL: 6.50 %) | |
| Potassium hydroxide 45% | CAS No.: 1310-58-3 | <1% | Met. Corr. 1, H290<br>Acute Tox. 4, H302<br>Skin Corr. 1, H314<br>Eye Dam. 1, H318 | |
| sodium bromide | CAS No.: 7647-15-6 | <1% | | |
| Dissolvine H-40 | CAS No.: 139-89-9 | <1% | Acute Tox. 4, H302<br>Eye Dam. 1, H318 | |
| Dimezone S | CAS No.: 13047-13-7 | <0.1% | Acute Tox. 4, H302<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>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

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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).<br>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. |
| **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 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.
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 oxidizing agents and strong acids.
Hazardous decomposition products are: Sulphur 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.

## 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

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 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.

| | |
|---|---|
| **Recommended storage material:** | Keep only in original packaging. |
| **Storage temperature:** | 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
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

Potassium hydroxide 45%
Long term exposure limit (ACGIH TLV) (mg/m$^3$): 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 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. 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:** 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:** Liquid

**▼Colour:** Clear

**▼Odour:** None, Amine

**Odour threshold (ppm):** Testing not relevant or not possible due to the nature of the product.

**▼pH:** 9.6

**▼Density (g/cm³):** Testing not relevant or not possible due to the nature of the product.
-

**Relative density:** 1.07

**▼Kinematic viscosity:** No data available

**Dynamic viscosity:** No data available

**Particle characteristics:** Not applicable - product is a liquid

### Phase changes

**Melting point (°F):** Not applicable - product is a liquid

**Softening point/range (waxes and pastes) (°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 |
| **Evaporation rate (n-butylacetate = 100):** | 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):** | No data available |

**Solubility**

| | |
|---|---|
| **Solubility in water:** | Completely soluble |
| **n-octanol/water coefficient (LogKow):** | No data available |
| **Solubility in fat (g/L):** | No data available |

### 9.2. Other information

| | |
|---|---|
| **Sensitivity to shock:** | No |
| **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
Mechanical influences (e.g. Shock, pressure, impact, friction). Fire, sparks or other ignition sources.
Keep away from heat.
Incompatible with strong acids which may liberate sulphur dioxide.

### 10.5. Incompatible materials
Strong oxidizing agents
Strong acids
Incompatible with strong acids which may liberate Sulphur dioxide.

### 10.6. ▼Hazardous decomposition products
Hazardous decomposition products: Sulphur oxides and Nitrogen oxides (NOx)

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

**▼Acute toxicity**
Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

**▼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**
May cause an allergic skin reaction.

**Germ cell mutagenicity**
Suspected of causing genetic defects.

**Carcinogenicity**
Suspected of causing cancer.

**▼Reproductive toxicity**
Based on available data, the classification criteria are not met.

**STOT-single exposure**
Based on available data, the classification criteria are not met.

**▼STOT-repeated exposure**
May cause damage to organs (central nervous system, kidney, blood, liver) through prolonged or repeated exposure.

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

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

**▼Other information**
hydroquinone has been classified by IARC as a group 3 carcinogen.

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).

## 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 | - | 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 Sulfite Solution 45% is listed<br>2,2'-oxydiethanol is listed<br>hydroquinone is listed<br>Potassium hydroxide 45% is listed<br>sodium bromide is listed<br>Dissolvine H-40 is listed<br>Dimezone S 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<br>Potassium hydroxide 45% 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:** | Borax Pentahydrate is listed<br>Potassium hydroxide 45% is listed |
| **▼New Jersey / Right To Know Act:** | hydroquinone / Substance number: 1019<br>—<br>Borax Pentahydrate / Substance number:<br>—<br>Potassium hydroxide 45% / Substance number: 1571<br>Potassium hydroxide 45% is on the Special Health Hazard Substance List<br>—<br>sodium bromide / Substance number:<br>— |
| **New York / Right To Know Act:** | hydroquinone is listed<br>hydroquinone is regulated with a Reportable Quantity (RQ) of: 1 pounds<br>hydroquinone is regulated with a Treshold Reporting Quantity (TRQ) of: 0 pounds<br>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.

—
Potassium hydroxide 45% is listed
Potassium hydroxide 45% is regulated with a Reportable Quantity (RQ) of: 1000 pounds
Potassium hydroxide 45% is regulated with a Treshold Reporting Quantity (TRQ) of: 100 pounds

—

**▼Pennsylvania / Right To Know Act:**

2,2'-oxydiethanol is listed

—
hydroquinone is listed
hydroquinone is hazardous to the environment (E)

—
Borax Pentahydrate is listed

—
Potassium hydroxide 45% is listed
Potassium hydroxide 45% is hazardous to the environment (E)

—
sodium bromide is listed

—

**NFPA**

Health hazard: 2
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**

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

H318, Causes serious eye damage.
H319, Causes serious eye irritation.
H335, May cause respiratory irritation.
H341, Suspected of causing genetic defects.
H351, Suspected of causing cancer.
H360, May damage 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
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 blue 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 or 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