

# ILFORD PHOTO

## HARMAN technology Ltd

### SAFETY DATA SHEET

#### 2000RT Machine Paper Developer

#### 1. IDENTIFICATION

**Product Name** 2000RT Machine Paper Developer  
**Product No.** 1758056  
**Internal Id** 10004  
**Container Size** 5 Liter  
**Identification No.** 3082  
**Identified uses** Developer Solution  
**Supplier** Distributors  
USA: WYNIT Inc, 5801 East Taft Road, North  
Syracuse, NY 13212. Tel: 1 800 GO WYNIT (469  
9648) or 1 315 437 4167, Fax: 1 315 437 0432  
Canada: Amplis Foto Inc, 22 Telson Road,  
Markham, Ontario L3R 1E5, Tel: 905 477 4111,  
Fax: 905 477 2502  
**Contact Person** USA: ilfordhelp@wynit.com; Canada: phil.nielsen@amplis.com  
**Emergency Telephone** USA/Canada: For medical emergency, call 1 800 842 9660 (Product Misuse).

#### 2. HAZARD(S) IDENTIFICATION

**Appearance** Clear liquid.  
**Color** Colourless to pale yellow.  
**Odor** No characteristic odor.  
**GHS Pictogram**



**Signal Word** Warning

#### Hazard Statements

H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H341 Suspected of causing genetic defects.  
H351 Suspected of causing cancer.  
H400 Very toxic to aquatic life.

#### Precautionary Statements

P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302+352 IF ON SKIN: Wash with plenty of soap and water.  
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local regulations.

#### Contains

HYDROQUINONE

#### GHS Classification

Physical and Chemical Hazards Not classified.

# 2000RT Machine Paper Developer

Human health  
Environment

Eye Irrit. 2 - H319; Skin Sens. 1 - H317; Muta. 2 - H341; Carc. 2 - H351  
Aquatic Acute 1 - H400

## WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM - WHMIS

### WHMIS Label



Materials Causing Other  
Toxic Effects.

### Controlled Product Classification

This Product has been classified according to the hazard criteria of the Controlled Products Regulations and the MSDS contains all required information.

#### Inhalation

May cause irritation to the respiratory system.

#### Ingestion

Harmful if swallowed. May cause discomfort if swallowed.

#### Skin Contact

Irritating to skin. May cause sensitization by skin contact. May cause allergic contact eczema.

#### Eye Contact

Irritation of eyes and mucous membranes. Repeated exposure may cause chronic eye irritation.

#### Health Warnings

Spray and vapor in the eyes may cause irritation and smarting. May cause allergy. May cause hypersensitivity. Prolonged or repeated exposure may cause severe irritation. May cause skin irritation/eczema. May cause sensitization by skin contact. Irritating to eyes.

#### Route Of Entry

Ingestion. Skin and/or eye contact.

#### Medical Considerations

May aggravate existing: Skin disorders and allergies. Pre-existing eye problems.

#### Other Health Effects

Hydroquinone: Carcinogen Category 3. Mutagen Category 3. ACGIH A3 IARC 3 IARC Animal Carcinogen List. IARC Int. Agency for Cancer Research.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

<b>1-Phenyl-4-methyl-4-hydroxymethyl-3-pyrazolidone</b>	<b>&lt; 1</b>
<b>CAS No.: 13047-13-7</b>	<b>EC No.: 235-920-3</b>
GHS Classification Acute Tox. 4 - H302; Skin Sens. 1 - H317; Aquatic Chronic 2 - H411	
<b>Diethylenetriamine Pentaacetic Acid Na5</b>	<b>1-5%</b>
<b>CAS No.: 140-01-2</b>	<b>EC No.: 205-391-3</b>
GHS Classification Acute Tox. 4 - H332; Repr. 2 - H361d	
<b>HYDROQUINONE</b>	<b>1-5%</b>
<b>CAS No.: 123-31-9</b>	<b>EC No.: 204-617-8</b>
GHS Classification Acute Tox. 4 - H302; Eye Dam. 1 - H318; Skin Sens. 1 - H317; Muta. 2 - H341; Carc. 2 - H351; Aquatic Acute 1 - H400	

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<b>Potassium Carbonate</b>	<b>5-10%</b>
<b>CAS No.: 584-08-7</b>	<b>EC No.: 209-529-3</b>
GHS Classification Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; STOT SE 3 - H335	

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### 4. FIRST-AID MEASURES

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#### Description of first aid measures

**Inhalation**

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

**Ingestion**

Rinse mouth thoroughly. Get medical attention if any discomfort continues.

**Skin Contact**

Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Contact physician if irritation continues.

**Eye Contact**

Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Contact physician if irritation persists.

#### Most important symptoms and effects, both acute and delayed

**Inhalation**

No specific symptoms noted.

**Ingestion**

No specific symptoms noted.

**Skin Contact**

May cause skin sensitisation.

**Eye Contact**

Irritation of eyes and mucous membranes.

#### Indication of any immediate medical attention and special treatment needed

**Notes To The Physician**

No specific first aid measures noted.

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### 5. FIRE-FIGHTING MEASURES

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**Extinguishing Media**

The product is non-combustible. Use extinguishing media appropriate for surrounding fire.

**Unusual Fire & Explosion Hazards**

No unusual fire or explosion hazards noted.

**Specific Hazards**

The product is non-combustible. If heated, harmful vapors may be formed.

**Special Fire Fighting Procedures**

Avoid breathing fire vapors.

**Protective Equipment For Fire-Fighters**

Use protective equipment appropriate for surrounding materials. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

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### 6. ACCIDENTAL RELEASE MEASURES

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**Personal Precautions**

Wear protective clothing as described in Section 8 of this material safety data sheet. Avoid contact with skin and eyes. Provide adequate ventilation.

**Environmental Precautions**

Do not discharge into drains, water courses or onto the ground. The product should not be dumped in nature but collected and delivered according to agreement with the local authorities.

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## Spill Clean Up Methods

For waste disposal, see section 13. Small quantities may be flushed to drains with plenty of water. Prevent discharge of larger quantity to drain. Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. Wash contaminated area with water. Do not let washing down water contaminate ponds or waterways.

## Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

## 7. HANDLING AND STORAGE

### Handling

Provide good ventilation. Avoid spilling, skin and eye contact. Do not eat, drink or smoke when using the product. Read and follow manufacturer's recommendations.

### Storage

Store in closed original container in a dry place. Store under well-ventilated conditions at a temperature below 25°C.

### Storage Class

Chemical storage.

### Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT	STD	TWA (8-hrs)		STEL (15 min)		Notes
HYDROQUINONE	ACGIH		1 mg/m <sup>3</sup>			A3, Sen
HYDROQUINONE	PEL		2 mg/m <sup>3</sup>			
SODIUM HYDROXIDE	PEL		2 mg/m <sup>3</sup>			
SODIUM HYDROXIDE	PEL		2 mg/m <sup>3</sup>			C

  

COMPONENT	IDLH
HYDROQUINONE	50 mg/m <sup>3</sup>
SODIUM HYDROXIDE	10 mg/m <sup>3</sup>

ACGIH=American Conference of Governmental Industrial Hygienists.

A3: Confirmed Animal Carcinogen with Unknown Relevance to Humans.

SEN: Sensitizer.

Ceiling limit

### Protective Equipment



### Engineering Measures

Provide adequate ventilation. Must not be handled in confined space without sufficient ventilation.

### Respiratory Equipment

Respiratory protection not required.

### Hand Protection

Use protective gloves.

### Eye Protection

Use eye protection.

### Other Protection

Wear suitable protective clothing as protection against splashing or contamination.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Clear liquid.

### Color

Colourless to pale yellow.

## 2000RT Machine Paper Developer

Odor	No characteristic odor.
Solubility	Soluble in water.
Initial boiling point and boiling range	>100 760 mm Hg
Relative density	1.22
pH-Value, Conc. Solution	10.5
pH-Value, Diluted Solution	10.4 (1+4)

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### 10. STABILITY AND REACTIVITY

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#### Reactivity

No specific reactivity hazards associated with this product.

#### Stability

Stable under the prescribed storage conditions. No particular stability concerns.

#### Hazardous Polymerisation

Will not polymerise.

#### Conditions To Avoid

Avoid excessive heat for prolonged periods of time. Avoid contact with acids.

#### Materials To Avoid

Strong acids. Avoid contact with other photographic solutions and/or cleaning compounds.

#### Hazardous Decomposition Products

Fire or high temperatures create: Sulfurous gases (SO<sub>x</sub>).

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### 11. TOXICOLOGICAL INFORMATION

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#### Toxicological information

This chemical formulation has not been tested for health effects. Exposure effects listed are based on existing health data for the individual components that comprise the mixture.

#### Other Health Effects

Hydroquinone: Carcinogen Category 3. Mutagen Category 3. ACGIH A3 IARC 3 IARC Animal Carcinogen List. IARC Int. Agency for Cancer Research.

#### Toxicological Information on Ingredients:

#### HYDROQUINONE (CAS: 123-31-9)

##### Toxic Dose 1 - LD 50

320 mg/kg (oral rat)

##### Toxic Dose 2 - LD 50

>900 mg/kg (skn-rat)

#### 1-Phenyl-4-methyl-4-hydroxymethyl-3-pyrazolidone (CAS: 13047-13-7)

##### Toxic Dose 1 - LD 50

1000 mg/kg (oral rat)

##### Toxic Dose 2 - LD 50

>2000 mg/kg (skn-rat)

#### Diethylenetriamine Pentaacetic Acid Na5 (CAS: 140-01-2)

##### Toxic Dose 1 - LD 50

>4000 mg/kg (oral rat)

#### Potassium Carbonate (CAS: 584-08-7)

##### Toxic Dose 1 - LD 50

2570 mg/kg (oral-mouse)

##### Toxic Dose 2 - LD 50

1870 mg/kg (oral rat)

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### 12. ECOLOGICAL INFORMATION

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#### Toxicity

The product contains a substance that is very toxic to aquatic organisms.

#### Degradability

There are no data on the degradability of this product.

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## Bioaccumulative potential

No data available on bioaccumulation.

## Mobility:

The product is soluble in water.

## Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB Substances.

## Other adverse effects

None known.

### Ecological Information on Ingredients:

#### HYDROQUINONE (CAS: 123-31-9)

##### LC 50, 96 Hrs, Fish mg/l

0.10-0.18 (Fathead Minnow)

##### EC 50, 48 Hrs, Daphnia, mg/l

0.05

##### IC 50, 72 Hrs, Algae, mg/l

1.0

#### 1-Phenyl-4-methyl-4-hydroxymethyl-3-pyrazolidone (CAS: 13047-13-7)

##### LC 50, 96 Hrs, Fish mg/l

32 (Rainbow Trout)

##### EC 50, 48 Hrs, Daphnia, mg/l

1.7

#### Diethylenetriamine Pentaacetic Acid Na5 (CAS: 140-01-2)

##### LC 50, 96 Hrs, Fish mg/l

>1000 (Iepomis macrochirus)

##### EC 50, 48 Hrs, Daphnia, mg/l

>500 (daphnia magna)

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## 13. DISPOSAL CONSIDERATIONS

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### Disposal Methods

Used, diluted, and spent solutions may be allowed to be discharged to sanitary sewer by permit IF allowed by local regulations. Consult your local authority for advice. Waste may have to be pre-treated before discharge. Consult local authorities before discharging any waste to sewer. Do not discharge to septic system. Waste that cannot be discharged to sewer may have to be handled by a licensed hazardous waste contractor.

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## 14. TRANSPORT INFORMATION

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<b>General</b>	Limited Quantity Exemption. No labeling or placarding required for land and air transport within the USA under 49CFR 171.4 or for land transport within Canada under SOR/2008-34.
<b>UN No. (DOT/TDG)</b>	3082
<b>UN No. (IMDG)</b>	3082
<b>UN No. (ICAO)</b>	3082
<b>DOT Proper Shipping Name</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s. (contains hydroquinone).
<b>TDG Proper Shipping Name</b>	UN3082, Environmentally hazardous substance, liquid, n.o.s. (contains hydroquinone).
<b>IMDG Class</b>	9
<b>ICAO Class</b>	9
<b>Transport Labels</b>	



IMDG Pack Group

III

## 2000RT Machine Paper Developer

Air Pack Group

III

Environmentally Hazardous Substance/Marine Pollutant



EMS

F-A, S-F

Transport in Bulk according to Annex II of MARPOL 73/78 and the IBC Code Notes

Not applicable.

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### 15. REGULATORY INFORMATION

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#### Regulatory Status (US)

TSCA: The ingredients of this product are on the TSCA Inventory.

#### US Federal Regulations

##### **SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities**

The following ingredients are listed.

HYDROQUINONE; EPCRA 302 TPQ 10 000 lbs 500 lbs Tier II TPQ 500 lbs

##### **CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)**

The following ingredients are listed.

HYDROQUINONE; 100 lbs (45.4 Kg)

SODIUM HYDROXIDE; 1, 000 lbs (454 Kg)

##### **SARA Extremely Hazardous Substances EPCRA Reportable Quantities**

None of the ingredients are listed.

##### **SARA 313 Emission Reporting**

The following ingredients are listed.

HYDROQUINONE 2.87%

##### **CAA Accidental Release Prevention**

None of the ingredients are listed.

##### **OSHA Highly Hazardous Chemicals**

None of the ingredients are listed.

#### US State Regulations

##### **State Regulations Comments**

No information available.

##### **California Proposition 65 Carcinogens and Reproductive Toxins**

None of the ingredients are listed.

##### **California Air Toxics "Hot Spots" (A-I)**

The following ingredients are listed.

HYDROQUINONE

SODIUM HYDROXIDE

##### **California Air Toxics "Hot Spots" (A-II)**

None of the ingredients are listed.

##### **Massachusetts "Right To Know" List**

The following ingredients are listed.

HYDROQUINONE

SODIUM HYDROXIDE

##### **Rhode Island "Right To Know" List**

The following ingredients are listed.

HYDROQUINONE

SODIUM HYDROXIDE

##### **Minnesota "Right To Know" List**

The following ingredients are listed.

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HYDROQUINONE  
SODIUM HYDROXIDE

### **New Jersey "Right To Know" List**

The following ingredients are listed.

HYDROQUINONE  
SODIUM HYDROXIDE

### **Pennsylvania "Right To Know" List**

The following ingredients are listed.

HYDROQUINONE  
SODIUM HYDROXIDE

## **International Inventories**

### **Canada – DSL/NDSL**

The following ingredients are listed.

1-Phenyl-4-methyl-4-hydroxymethyl-3-pyrazolidone

4BZ

HYDROQUINONE  
Potassium Carbonate  
Sodium Bromide  
SODIUM HYDROXIDE

### **US - TSCA**

The following ingredients are listed.

1-Phenyl-4-methyl-4-hydroxymethyl-3-pyrazolidone

4BZ

HYDROQUINONE  
Potassium Carbonate  
Sodium Bromide  
SODIUM HYDROXIDE

### **US – TSCA 12(b) Export Notification**

None of the ingredients are listed.

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## **16. OTHER INFORMATION**

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### **General Information**

HARMAN technology Ltd believe the information and recommendations contained herein are based on correct and factual data. However, no express or implied guarantee or warranty of any kind is made with respect to this information. Use this information only to supplement other information you have gathered and then make an independent determination about the completeness and suitability of all information to ensure the proper use and disposal of this product and the health and safety of employees and customers.

### **Information Sources**

Material Safety Data Sheet, Misc. manufacturers. European Photographic Chemical Industry Code of Practice For Classification And Labelling Dangerous Properties of Industrial Chemicals, 6.edition, N.Sax, 1984.

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