

**ILFORD PHOTO**  
**HARMAN** technology Ltd  
**SAFETY DATA SHEET**  
**2000RT Machine Paper Developer**

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**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

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**1.1. Product identifier**

**Product name** 2000RT Machine Paper Developer  
**Product No.** 1758056  
**Internal Id** 10004  
**Container size** 5 Litre

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

**Identified uses** Photographic Developer Solution

**1.3. Details of the supplier of the safety data sheet**

**Supplier** Distributors  
UK: HARMAN technology Ltd, Ilford Way,  
Mobberley, Cheshire, WA16 7JL, UK Tel: 01565  
650000, Fax: 01565 872734.  
(<http://www.harmanotechnology.com>)  
Australia: CR Kennedy & Co Pty Ltd, 663 Chapel  
Street, South Yarra, Victoria 3141, Australia. Tel:  
03 9823 1555, Fax: 03 9827 7216  
**Contact Person** UK: HS&E Advisor Dr Trevor Rhodes Tel: +44(0)1565 650000, email:  
[trevor.rhodes@harmanotechnology.com](mailto:trevor.rhodes@harmanotechnology.com) Australia: Contact Distributor (<http://www.crkennedy.com.au>) Tel  
+61 (0)3 9823 1555

**1.4. Emergency telephone number**

Australia: 1-800-557346  
UK and elsewhere: +44(0) 207 858 1228

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**SECTION 2: HAZARDS IDENTIFICATION**

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**2.1. Classification of the substance or mixture**

**Classification (EC 1272/2008)**

Physical and Chemical Hazards Not classified.  
Human health Eye Irrit. 2 - H319;Skin Sens. 1 - H317;Muta. 2 - H341;Carc. 2 - H351  
Environment Aquatic Acute 1 - H400

**Classification (1999/45/EEC)**

Carc. Cat. 3;R40, Muta Cat. 3;R68. R43. N;R50.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

**2.2. Label elements**

**Contains** 1-Phenyl-4-methyl-4-hydroxymethyl-3-pyrazolidone  
HYDROQUINONE

**Label In Accordance With (EC) No. 1272/2008**

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**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.

**2.3. Other hazards**

No information available.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**3.2. Mixtures**

<b>1-Phenyl-4-methyl-4-hydroxymethyl-3-pyrazolidone</b>	<b>&lt; 1</b>
CAS-No.: 13047-13-7	EC No.: 235-920-3
Classification (EC 1272/2008) Acute Tox. 4 - H302 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	Classification (67/548/EEC) Xn;R22. N;R51/53. R43.
<b>Diethylenetriamine Pentaacetic Acid Na5</b>	<b>1-5%</b>
CAS-No.: 140-01-2	EC No.: 205-391-3
Classification (EC 1272/2008) Acute Tox. 4 - H332 Repr. 2 - H361d	Classification (67/548/EEC) Xn;R20. Repr. Cat. 3;R63.
<b>HYDROQUINONE</b>	<b>1-5%</b>
CAS-No.: 123-31-9	EC No.: 204-617-8

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Classification (EC 1272/2008) Acute Tox. 4 - H302 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Muta. 2 - H341 Carc. 2 - H351 Aquatic Acute 1 - H400	Classification (67/548/EEC) Carc. Cat. 3;R40 Muta. Cat. 3;R68 Xn;R22 R43 Xi;R41 N;R50
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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>

Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335	Classification (67/548/EEC) Xi;R36/37/38.
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<b>SODIUM HYDROXIDE</b>	<b>&lt; 1</b>
<b>CAS-No.: 1310-73-2</b>	<b>EC No.: 215-185-5</b>

Classification (EC 1272/2008) Skin Corr. 1A - H314	Classification (67/548/EEC) C;R35
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The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

### Composition Comments

Hazardous according to the criteria of Worksafe Australia

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## SECTION 4: FIRST AID MEASURES

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### 4.1. 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.

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

#### **Inhalation**

No specific symptoms noted.

#### **Ingestion**

No specific symptoms noted.

#### **Skin contact**

May cause sensitisation by skin contact.

#### **Eye contact**

Irritation of eyes and mucous membranes.

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

No specific first aid measures noted.

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## SECTION 5: FIREFIGHTING MEASURES

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# 2000RT Machine Paper Developer

## 5.1. Extinguishing media

### Extinguishing media

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

## 5.2. Special hazards arising from the substance or mixture

### Unusual Fire & Explosion Hazards

No unusual fire or explosion hazards noted.

### Specific hazards

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

## 5.3. Advice for firefighters

### Special Fire Fighting Procedures

Avoid breathing fire vapours.

### 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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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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### 6.1. Personal precautions, protective equipment and emergency procedures

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

### 6.2. 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.

### 6.3. Methods and material for containment and cleaning up

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.

### 6.4. Reference to other sections

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

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## SECTION 7: HANDLING AND STORAGE

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### 7.1. Precautions for safe 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.

### 7.2. Conditions for safe storage, including any incompatibilities

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

### Storage Class

Chemical storage.

### 7.3. Specific end use(s)

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

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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### 8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
HYDROQUINONE	WEL		0,5 mg/m <sup>3</sup>			
SODIUM HYDROXIDE	WEL				2 mg/m <sup>3</sup>	

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WEL = Workplace Exposure Limit.

## **8.2. Exposure controls**

### **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.

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## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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### **9.1. Information on basic physical and chemical properties**

<b>Appearance</b>	Clear liquid.
<b>Colour</b>	Colourless to pale yellow.
<b>Odour</b>	No characteristic odour.
<b>Solubility</b>	Soluble in water.
<b>Initial boiling point and boiling range (°C)</b>	>100 760 mm Hg
<b>Relative density</b>	1.22
<b>pH-Value, Conc. Solution</b>	10.5
<b>pH-Value, Diluted Solution</b>	10.4 (1+4)

### **9.2. Other information**

Not available.

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## **SECTION 10: STABILITY AND REACTIVITY**

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### **10.1. Reactivity**

No specific reactivity hazards associated with this product.

### **10.2. Chemical stability**

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

### **10.3. Possibility of hazardous reactions**

#### **Hazardous Polymerisation**

Will not polymerise.

### **10.4. Conditions to avoid**

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

### **10.5. Incompatible materials**

#### **Materials To Avoid**

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

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### 10.6. Hazardous decomposition products

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

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## SECTION 11: TOXICOLOGICAL INFORMATION

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### 11.1. Information on toxicological effects

#### **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.

#### **Inhalation**

May cause irritation to the respiratory system.

#### **Ingestion**

Harmful if swallowed. May cause discomfort if swallowed.

#### **Skin contact**

Irritating to skin. May cause sensitisation 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**

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

#### **Route of entry**

Ingestion. Skin and/or eye contact.

#### **Medical Considerations**

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

#### 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 Na<sub>5</sub> (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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## SECTION 12: ECOLOGICAL INFORMATION

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## 2000RT Machine Paper Developer

### 12.1. Toxicity

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

#### 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)

### 12.2. Persistence and degradability

#### **Degradability**

There are no data on the degradability of this product.

### 12.3. Bioaccumulative potential

#### **Bioaccumulative potential**

No data available on bioaccumulation.

### 12.4. Mobility in soil

#### **Mobility:**

The product is soluble in water.

### 12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

### 12.6. Other adverse effects

None known.

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## SECTION 13: DISPOSAL CONSIDERATIONS

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### 13.1. Waste treatment 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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## SECTION 14: TRANSPORT INFORMATION

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General LIMITED QUANTITY EXEMPTION

### 14.1. UN number

UN No. (ADR/RID/ADN) 3082  
UN No. (IMDG) 3082

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UN No. (ICAO) 3082

### 14.2. UN proper shipping name

Proper Shipping Name UN3082, Environmentally hazardous substance, liquid, n.o.s. (contains hydroquinone).

### 14.3. Transport hazard class(es)

ADR/RID/ADN Class 9 (M6)  
ADR/RID/ADN Class Class 9: Other dangerous substances.  
ADR Label No. 9  
IMDG Class 9  
ICAO Class/Division 9  
Transport Labels



### 14.4. Packing group

ADR/RID/ADN Packing group III  
IMDG Packing group III  
ICAO Packing group III

### 14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant



### 14.6. Special precautions for user

EMS F-A, S-F  
Hazard No. (ADR) 90 Environmentally hazardous substance; miscellaneous dangerous substances.  
Tunnel Restriction Code (E)

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

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## SECTION 15: REGULATORY INFORMATION

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

#### Approved Code Of Practice

Classification and Labelling of Substances and Preparations Dangerous for Supply. Worksafe Australia NOHSC 2012: Labelling of workplace substances. Australian Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP). Australian Approved Criteria for Classifying Hazardous Substances (NOHSC 1008). Australian List of Designated Hazardous Substances (NOHSC 10005). Australian National Code of Practice for the Preparation of Material safety Data Sheets (NOHSC 2011)



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## Guidance Notes

CHIP for everyone HSG(108).

## EU Legislation

Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EC. EU COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010.

## National Regulations

Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments. Workplace Exposure Limits 2007 (EH40) The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 No 716

## 15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

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## SECTION 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.

**Issued By** HS&E Advisor Dr Trevor Rhodes Tel: +44(0)1565 650000, email: trevor.rhodes@harmantechnology.com

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**Revision** 14

**Supersedes date** 16/04/2014

### Risk Phrases In Full

R35	Causes severe burns.
R20	Harmful by inhalation.
R22	Harmful if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
R40	Limited evidence of a carcinogenic effect.
R43	May cause sensitisation by skin contact.
R63	Possible risk of harm to the unborn child.
R68	Possible risk of irreversible effects.
R41	Risk of serious damage to eyes.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R50	Very toxic to aquatic organisms.

### Hazard Statements In Full

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.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.