

# SAFETY DATA SHEET

## MULTIGRADE DEVELOPER 1+9

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### 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

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**PRODUCT NAME** MULTIGRADE DEVELOPER 1+9  
**PRODUCT NO.** IP881111-1+9  
**INTERNAL ID** 10145  
**APPLICATION** Photographic Developer Solution  
**CONTACT PERSON** HS&E Advisor Dr Trevor Rhodes Tel: +44(0)1565 650000, email: trevor.rhodes@harmantechnology.com

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### 2 HAZARDS IDENTIFICATION

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Not regarded as a health or environmental hazard under current legislation.

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### 3 COMPOSITION/INFORMATION ON INGREDIENTS

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Name	EC No.	CAS-No.	Content	Classification (67/548)
HYDROQUINONE	204-617-8	123-31-9	< 1	Carc. Cat. 3;R40 Muta. Cat. 3;R68 Xn;R22 R43 Xi;R41 N;R50
SODIUM HYDROXIDE	215-185-5	1310-73-2	< 1	C;R35

The Full Text for all R-Phrases are Displayed in Section 16

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### 4 FIRST-AID MEASURES

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#### GENERAL INFORMATION

No recommendation given, but first aid may still be required in case of accidental exposure. If in doubt, get medical attention!

#### INHALATION

Unlikely route of exposure as the product does not contain volatile substances.

#### INGESTION

Rinse mouth thoroughly.

#### SKIN CONTACT

Rinse immediately with plenty of water.

#### EYE CONTACT

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention if any discomfort continues.

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### 5 FIRE-FIGHTING MEASURES

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#### EXTINGUISHING MEDIA

This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

#### UNUSUAL FIRE & EXPLOSION HAZARDS

No unusual fire or explosion hazards noted.

#### SPECIFIC HAZARDS

Fire creates: Irritating gases/vapours/fumes of: Sulphur dioxide.

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### 6 ACCIDENTAL RELEASE MEASURES

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#### SPILL CLEAN UP METHODS

Do not contaminate water sources or sewer. Absorb in vermiculite, dry sand or earth and place into containers. Contain Spill. Use large quantities of water to flush small spills to sanitary sewer if local regulations permit. Do not flush to septic tank. See Section 13 for disposal considerations. Flush with plenty of water to clean spillage area. Prevent discharge of larger quantity to drain.

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### 7 HANDLING AND STORAGE

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## MULTIGRADE DEVELOPER 1+9

### USAGE PRECAUTIONS

Avoid spilling, skin and eye contact. Read and follow manufacturer's recommendations. Provide good ventilation.

### STORAGE PRECAUTIONS

No special storage precautions noted.

### STORAGE CLASS

Chemical storage.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	TWA - 8 hrs		STEL - 15 min		Notes
HYDROQUINONE	WEL		0.5 mg/m3			
SODIUM HYDROXIDE	WEL				2 mg/m3	

WEL = Workplace Exposure 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

<b>APPEARANCE</b>	Liquid Water-soluble		
<b>COLOUR</b>	Colourless		
<b>ODOUR</b>	No characteristic odour.		
<b>SOLUBILITY</b>	Soluble in water.		
<b>BOILING POINT (°C)</b>	>100 760 mm Hg	<b>MELTING POINT (°C)</b>	<0
<b>RELATIVE DENSITY</b>	1.235 20	<b>VAPOUR PRESSURE</b>	- Not Known
<b>EVAPORATION RATE</b>	1 H <sub>2</sub> O (water)=1	<b>pH-VALUE, CONC. SOLUTION</b>	10.6
<b>pH-VALUE, DILUTED SOLUTION</b>	10.45 - 10.55		

## 10 STABILITY AND REACTIVITY

### STABILITY

Stable under normal temperature conditions.

### CONDITIONS TO AVOID

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

### HAZARDOUS POLYMERISATION

Will not polymerise.

### MATERIALS TO AVOID

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

### HAZARDOUS DECOMPOSITION PRODUCTS

Irritating gases/vapours/fumes of: Sulphur dioxide.

**MULTIGRADE DEVELOPER 1+9****11 TOXICOLOGICAL INFORMATION****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.

**INHALATION**

No specific health warnings noted.

**INGESTION**

No specific health warnings noted.

**SKIN CONTACT**

The product contains a small amount of sensitising substance which may provoke an allergic reaction among sensitive individuals after repeated contact.

**EYE CONTACT**

Irritating to eyes.

**HEALTH WARNINGS**

No specific health warnings noted.

Spray and vapour in the eyes may cause irritation and smarting.

**OTHER HEALTH EFFECTS**

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

**ROUTE OF ENTRY**

Ingestion. Skin and/or eye contact.

**MEDICAL CONSIDERATIONS**

May aggravate existing: Pre-existing eye problems.

<b>Name</b>	HYDROQUINONE
<b>Toxic Dose 1 - LD 50</b>	320 mg/kg (oral rat)
<b>Toxic Dose 2 - LD 50</b>	>900 mg/kg (skn-rat)

**12 ECOLOGICAL INFORMATION****ECOTOXICITY**

The product contains a substance which is harmful to aquatic organisms.

<b>Name</b>	HYDROQUINONE
<b>LC 50, 96 Hrs, FISH mg/l</b>	0.10-0.18 (Fathead Minnow)
<b>EC 50, 48 Hrs, DAPHNIA, mg/l</b>	0.05
<b>IC 50, 72 Hrs, ALGAE, mg/l</b>	1.0

**13 DISPOSAL CONSIDERATIONS****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. EU Waste Number: 090101

**14 TRANSPORT INFORMATION**

	No transport warning sign required.
<b>ROAD TRANSPORT NOTES</b>	Not classified for road transport
<b>RAIL TRANSPORT NOTES</b>	Not classified for rail transport
<b>SEA TRANSPORT NOTES</b>	Not classified for sea transport
<b>AIR TRANSPORT NOTES</b>	Not classified for air transport
<b>ADR CLASS</b>	Not classified for transportation.

**15 REGULATORY INFORMATION**

## MULTIGRADE DEVELOPER 1+9

### RISK PHRASES

NC Not classified.

### SAFETY PHRASES

P14 Contains HYDROQUINONE. May produce an allergic reaction.

### EU DIRECTIVES

Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EC.

### APPROVED CODE OF PRACTICE

Classification and Labelling of Substances and Preparations Dangerous for Supply.

### GUIDANCE NOTES

Workplace Exposure Limits EH40. CHIP for everyone HSG(108).

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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

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

### ISSUED BY

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### SAFETY DATA SHEET STATUS

Approved.

### RISK PHRASES IN FULL

R35 Causes severe burns.  
R22 Harmful if swallowed.  
R40 Limited evidence of a carcinogenic effect.  
R43 May cause sensitisation by skin contact.  
R68 Possible risk of irreversible effects.  
R41 Risk of serious damage to eyes.  
R50 Very toxic to aquatic organisms.