

**ILFORD PHOTO**  
**HARMAN** technology Ltd  
**SAFETY DATA SHEET**  
**Ilfosol 3 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	Ilfosol 3 Developer
Product No.	1131778
Internal Id	10255
Container size	500ml

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

Identified uses	Photographic Developer Solution
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**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. ( <a href="http://www.harmantechnology.com">http://www.harmantechnology.com</a> ) Australia: CR Kennedy & Co Pty Ltd, 663 Chapel Street, South Yarra, Victoria 3141, Australia. Tel: 03 9823 1555, Fax: 03 9827 7216
Contact Person	Dr Trevor Rhodes, HARMAN technology Ltd, Tel: +44(0)1565 650000, email: <a href="mailto:trevor.rhodes@ilfordphoto.com">trevor.rhodes@ilfordphoto.com</a>

**1.4. Emergency telephone number**

Swiss Toxicological Information Centre (24 hours) Tel: +41 (0)1 251 5151, Fax: +41 (0)1 252 8833 E-mail: [stic@access.ch](mailto:stic@access.ch), Internet:  
[www.toxi.ch](http://www.toxi.ch)

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**SECTION 2: HAZARDS IDENTIFICATION**

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

Classification (1999/45/EEC)	Not classified.
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**2.2. Label elements**

Risk Phrases	NC	Not classified.
Safety Phrases	S2 S39 P14	Keep out of the reach of children. Wear eye/face protection. Contains 1-Phenyl-4-Methyl-4-Hydroxymethyl-3-Pyrazolidone, HYDROQUINONE. May produce an allergic reaction.

**2.3. Other hazards**

No information available.

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**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

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## Ifosol 3 Developer

### 3.2. Mixtures

<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>
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>HYDROQUINONE</b>		<b>&lt; 1</b>
<b>CAS-No.: 123-31-9</b>		<b>EC No.: 204-617-8</b>
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	
<b>SODIUM CARBONATE</b>		<b>1-5%</b>
<b>CAS-No.: 497-19-8</b>		<b>EC No.: 207-838-8</b>
Classification (EC 1272/2008) Eye Irrit. 2 - H319	Classification (67/548/EEC) Xi;R36	

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

### SECTION 4: FIRST AID MEASURES

#### 4.1. Description of first aid measures

##### Inhalation

Unlikely route of exposure as the product does not contain volatile substances. Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

##### Ingestion

Remove victim immediately from source of exposure. Rinse mouth thoroughly. Drink a few glasses of water or milk. DO NOT induce vomiting. Get medical attention immediately.

##### Skin contact

Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately 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.

## Ilfosol 3 Developer

### **Ingestion**

No specific symptoms noted.

### **Skin contact**

No specific symptoms noted.

### **Eye contact**

May cause temporary eye irritation.

### **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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### **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**

Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see section 8.

### **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. Wear necessary protective equipment. Small quantities may be flushed to drains with plenty of water. Absorb in vermiculite, dry sand or earth and place into containers. Wash contaminated area with water. Prevent discharge of larger quantity to drain.

### **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 above freezing. Store under well-ventilated conditions at a temperature below 25°C.

#### **Storage Class**

Chemical storage.

### **7.3. Specific end use(s)**

## Ilfosol 3 Developer

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

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
HYDROQUINONE	WEL		0.5 mg/m <sup>3</sup>			

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.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	Coloured liquid.
Colour	Light (or pale). Yellow. Orange. Brown.
Odour	No characteristic odour.
Solubility	100% Soluble in water.
Initial boiling point and boiling range (°C)	>100 760 mm Hg
Relative density	1.07 20
pH-Value, Conc. Solution	9.8

#### 9.2. Other information

Not applicable.

### SECTION 10: STABILITY AND REACTIVITY

#### 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.

## Ifosol 3 Developer

### 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.

### 10.6. Hazardous decomposition products

Fire or high temperatures create: Sulphurous gases (SOx).

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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**

May cause discomfort if swallowed.

#### **Skin contact**

May cause sensitisation by skin contact. May cause allergic contact eczema.

#### **Eye contact**

May cause temporary eye irritation.

#### **Health Warnings**

Spray and vapour in the eyes may cause irritation and smarting. May cause allergy. May cause hypersensitivity.

#### **Route of entry**

Skin and/or eye contact. Ingestion.

#### **Medical Considerations**

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

#### Toxicological information on ingredients.

#### SODIUM CARBONATE (CAS: 497-19-8)

##### **Toxic Dose 1 - LD 50**

4090 mg/kg (oral rat)

#### 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)

**Ifosol 3 Developer**  
**Diethylenetriamine Pentaacetic Acid Na5 (CAS: 140-01-2)**

**Toxic Dose 1 - LD 50**  
>4000 mg/kg (oral rat)

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## SECTION 12: ECOLOGICAL INFORMATION

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### **12.1. Toxicity**

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

#### **Ecological information on ingredients.**

##### **SODIUM CARBONATE (CAS: 497-19-8)**

**LC 50, 96 Hrs, Fish mg/l**  
320 (Bluegill)

##### **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**

No data available.

### **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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### **General information**

The disposal process for this product when it becomes waste, depends largely upon how much (volume) waste is generated, where the waste is generated (location) and by whom (whether in a professional or amateur or other capacity). Therefore only outline guidance can be provided. For detailed guidance and specialist advice on the disposal of this product when it becomes waste, please visit the COPPICE web site at <http://www.pic.uk.net/coppice/index.htm>. The information is relevant to both professional and amateur users.

### **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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<b>General</b>	The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).
<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

### **14.1. UN number**

Not applicable.

### **14.2. UN proper shipping name**

Not applicable.

### **14.3. Transport hazard class(es)**

Not applicable.

#### **Transport Labels**

No transport warning sign required.

### **14.4. Packing group**

Not applicable.

### **14.5. Environmental hazards**

#### **Environmentally Hazardous Substance/Marine Pollutant**

No.

### **14.6. Special precautions for user**

Not applicable.

### **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)

#### **Guidance Notes**

CHIP for everyone HSG(108).

## Ifosol 3 Developer

### EU Legislation

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

### 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.

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**Revision** 9

**Supersedes date** 16/09/2010

### Risk Phrases In Full

R22	Harmful if swallowed.
R36	Irritating to eyes.
R40	Limited evidence of a carcinogenic effect.
R43	May cause sensitisation by skin contact.
NC	Not classified.
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

H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H341	Suspected of causing genetic defects.
H411	Toxic to aquatic life with long lasting effects.
H400	Very toxic to aquatic life.