

# ILFORD PHOTO

## HARMAN technology Ltd

### SAFETY DATA SHEET

#### Ifotec HC Film Developer

According to Regulation (EC) No 1907/2006, Annex II, as amended.

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1. Product identifier

Product name	Ifotec HC Film Developer
Product number	1155064
Internal identification	10019
Container size	1 Litre

##### 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	UK: HS&E Advisor Dr Trevor Rhodes Tel: +44(0)1565 650000, email: <a href="mailto:trevor.rhodes@harmantechnology.com">trevor.rhodes@harmantechnology.com</a> Australia: Contact Distributor ( <a href="http://www.crkenedy.com.au">http://www.crkenedy.com.au</a> ) Tel +61 (0)3 9823 1555

##### 1.4. Emergency telephone number

Emergency telephone	Australia: 1-800-557346 UK and elsewhere: +44(0) 207 858 1228
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#### SECTION 2: Hazards identification

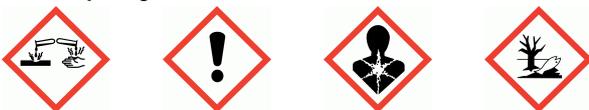
##### 2.1. Classification of the substance or mixture

###### Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Muta. 2 - H341 Carc. 2 - H351 Repr. 2 - H361d STOT RE 2 - H373
Environmental hazards	Aquatic Acute 1 - H400 Aquatic Chronic 3 - H412

##### 2.2. Label elements

###### Hazard pictograms



Signal word

Danger

## Ifotec HC Film Developer

<b>Hazard statements</b>	<p>H302 Harmful if swallowed.</p> <p>H315 Causes skin irritation.</p> <p>H318 Causes serious eye damage.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H341 Suspected of causing genetic defects.</p> <p>H351 Suspected of causing cancer.</p> <p>H361d Suspected of damaging the unborn child.</p> <p>H373 May cause damage to organs through prolonged or repeated exposure.</p> <p>H400 Very toxic to aquatic life.</p> <p>H412 Harmful to aquatic life with long lasting effects.</p>
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<b>Precautionary statements</b>	<p>P101 If medical advice is needed, have product container or label at hand.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective clothing, gloves, eye and face protection.</p> <p>P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/ container in accordance with local regulations.</p>
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<b>Contains</b>	DIETHANOLAMINE, 2,2'-OXYBISETHANOL, HYDROQUINONE, N-carboxymethyliminobis(ethylenenitrilo)tetra(acetic acid)
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### 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

<b>DIETHANOLAMINE</b>	<b>10-30%</b>
CAS number: 111-42-2	EC number: 203-868-0
	REACH registration number: 01-2119488930-28-XXXX
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>
Acute Tox. 4 - H302	Xn;R22,R48/22 Xi;R38,R41
Skin Irrit. 2 - H315	
Eye Dam. 1 - H318	
STOT RE 2 - H373	
Aquatic Chronic 3 - H412	
<b>2,2'-OXYBISETHANOL</b>	<b>10-30%</b>
CAS number: 111-46-6	EC number: 203-872-2
	REACH registration number: 01-2119457857-21-XXXX
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>
Acute Tox. 4 - H302	Xn;R22

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<b>HYDROQUINONE</b>		<b>5-10%</b>
CAS number: 123-31-9	EC number: 204-617-8	REACH registration number: 01-2119524016-51-XXXX
M factor (Acute) = 10		
<b>Classification</b> Acute Tox. 4 - H302 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Muta. 2 - H341 Carc. 2 - H351 Aquatic Acute 1 - H400	<b>Classification (67/548/EEC or 1999/45/EC)</b> Carc. Cat. 3;R40 Muta. Cat. 3;R68 Xn;R22 R43 Xi;R41 N;R50	
<b>N-carboxymethyliminobis(ethylenenitrilo)tetra(acetic acid)</b>		<b>1-5%</b>
CAS number: 67-43-6	EC number: 200-652-8	
<b>Classification</b> Acute Tox. 4 - H332 Eye Irrit. 2 - H319 Repr. 2 - H361d	<b>Classification (67/548/EEC or 1999/45/EC)</b> Xn;R20. Repr. Cat. 3;R63. Xi;R36.	
<b>1-Phenyl-4-methyl-3-pyrazolidone</b>		<b>&lt; 1%</b>
CAS number: 2654-57-1	EC number: 220-180-6	
<b>Classification</b> Acute Tox. 4 - H302 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	<b>Classification (67/548/EEC or 1999/45/EC)</b> Xn;R22. N;R51/53. R43.	
<b>pentasodium (carboxylatomethyl)iminobis(ethylenenitrilo)tetraacetate</b>		<b>&lt;1%</b>
CAS number: 140-01-2	EC number: 205-391-3	REACH registration number: 01-2119474445-33-XXXX
<b>Classification</b> Acute Tox. 4 - H332 Repr. 2 - H361fd STOT RE 2 - H373	<b>Classification (67/548/EEC or 1999/45/EC)</b> Xn;R20. Repr. Cat. 3;R63.	

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>Inhalation</b>	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
<b>Skin contact</b>	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

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**Eye contact** Remove affected person from source of contamination. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

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

**Inhalation** No specific symptoms known.

**Ingestion** No specific symptoms known.

**Skin contact** May cause sensitisation by skin contact.

**Eye contact** Irritation of eyes and mucous membranes. May cause serious eye damage.

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

**Notes for the doctor** No specific recommendations.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media** Use fire-extinguishing media suitable for the surrounding fire.

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

**Specific hazards** Toxic gases or vapours. No unusual fire or explosion hazards noted.

**Hazardous combustion products** Thermal decomposition or combustion products may include the following substances: Ammonia or amines. Oxides of sulphur. Oxides of carbon. Oxides of nitrogen.

### 5.3. Advice for firefighters

**Protective actions during firefighting** Avoid breathing fire gases or vapours.

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

## SECTION 6: Accidental release measures

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

**Personal precautions** Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8.

### 6.2. Environmental precautions

**Environmental precautions** Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.

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

**Methods for cleaning up** Wear protective clothing, gloves, eye and face protection. Small Spillages: Flush away spillage with plenty of water. Large Spillages: Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. For waste disposal, see Section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Provide adequate ventilation. Avoid spilling. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Read and follow manufacturer's recommendations.

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

**Storage precautions** Store in tightly-closed, original container. Storage advice to ensure the product remains in a useable condition throughout its specified shelf life: Store at temperatures above 0°C. Store at temperatures not exceeding 30°C.

**Storage class** Chemical storage.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure controls/Personal protection

### 8.1. Control parameters

#### Occupational exposure limits

#### **2,2'-OXYBISETHANOL**

Long-term exposure limit (8-hour TWA): WEL 23 ppm 101 mg/m<sup>3</sup>

#### **HYDROQUINONE**

Long-term exposure limit (8-hour TWA): WEL 0.5 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit

#### DIETHANOLAMINE (CAS: 111-42-2)

<b>DNEL</b>	Consumer - Oral; Long term systemic effects: 0.06 mg/kg/day Workers - Dermal; Short term systemic effects: 0.13 mg/kg/day Consumer - Dermal; Long term systemic effects: 0.07 mg/kg/day Workers - Inhalation; Short term local effects: 1 mg/m <sup>3</sup> Workers - Inhalation; Short term systemic effects: 33 mg/m <sup>3</sup> Consumer - Inhalation; Long term local effects: 0.25 mg/m <sup>3</sup> Workers - Inhalation; Long term systemic effects: 4 mg/m <sup>3</sup>
<b>PNEC</b>	- Fresh water; 0.0022 mg/l - marine water; 0.00022 mg/l - Water, Intermittent release; 0.022 mg/l - Sediment (Freshwater); 0.019 mg/kg - Sediment (Marinewater); 0.0019 mg/kg

#### 2,2'-OXYBISETHANOL (CAS: 111-46-6)

<b>DNEL</b>	Consumer - Dermal; Long term systemic effects: 53 mg/kg/day Industry - Dermal; Long term systemic effects: 106 mg/kg/day Consumer - Inhalation; Long term local effects: 12 mg/m <sup>3</sup> Industry - Inhalation; Long term local effects: 60 mg/m <sup>3</sup>
<b>PNEC</b>	- Soil; 1.53 mg/kg - STP; 199.5 mg/l - Fresh water; 10 mg/l - marine water; 1 mg/l - Water, Intermittent release; 10 mg/l - Sediment (Freshwater); 20.9 mg/kg - Sediment (Marinewater); 2.09 mg/kg

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

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<b>DNEL</b>	Industry/Professional - Dermal; Long term systemic effects: 128 mg/kg/day Industry/Professional - Inhalation; Long term systemic effects: 7 mg/m <sup>3</sup> Industry/Professional - Inhalation; Long term local effects: 1 mg/m <sup>3</sup> General population - Dermal; Long term systemic effects: 64 mg/kg/day General population - Inhalation; Long term systemic effects: 1.74 mg/m <sup>3</sup> General population - Inhalation; Long term local effects: 0.5 mg/m <sup>3</sup>
<b>PNEC</b>	- Water; 0.000114 mg/l - marine water; 0.0000114 mg/l - Sediment (Freshwater); 0.00098 mg/kg - Sediment (Marinewater); 0.000097 mg/kg - Intermittent release; 0.00134 mg/l - Soil; 0.000129 mg/kg - STP; 0.71 mg/l

### pentasodium (carboxylatomethyl)iminobis(ethylenitrilo)tetraacetate (CAS: 140-01-2)

<b>DNEL</b>	Workers - Inhalation; Long term systemic effects: 1.5 mg/m <sup>3</sup>
<b>PNEC</b>	- Fresh water; 6.4 mg/l - marine water; 0.64 mg/l - Water, Intermittent release; 3.1 mg/l - STP; 51 mg/l - Sediment (Freshwater); 25.1 mg/kg - Sediment (Marinewater); 2.51 mg/kg - Soil; 1.26 mg/kg

## 8.2. Exposure controls

### Protective equipment



#### Appropriate engineering controls

Provide adequate ventilation. This product must not be handled in a confined space without adequate ventilation.

#### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible.

#### Hand protection

Use protective gloves.

#### Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination.

#### Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn.

## SECTION 9: Physical and chemical properties

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

<b>Appearance</b>	Viscous liquid. Liquid.
<b>Colour</b>	Clear liquid. Colourless to pale yellow.
<b>Odour</b>	No characteristic odour.
<b>pH</b>	pH (concentrated solution): 9.4
<b>Initial boiling point and range</b>	>100°C @ 760 mm Hg
<b>Relative density</b>	1.217 @ 20°C

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**Solubility(ies)** 100% Soluble in water.

### 9.2. Other information

**Other information** Not available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity** The following materials may react with the product: Strong acids. Oxidising agents.

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Under normal conditions of storage and use, no hazardous reactions will occur.

### 10.4. Conditions to avoid

**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

**Hazardous decomposition products** Thermal decomposition or combustion products may include the following substances: Ammonia or amines. Sulphurous gases (SO<sub>x</sub>). Oxides of carbon. Oxides of nitrogen.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Toxicological effects** 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.

#### Acute toxicity - oral

**ATE oral (mg/kg)** 1,994.93

#### Acute toxicity - inhalation

**ATE inhalation (gases ppm)** 225,123.82

**ATE inhalation (vapours mg/l)** 550.3

**ATE inhalation (dusts/mists mg/l)** 75.04

#### Germ cell mutagenicity

**Genotoxicity - in vitro** The product contains a substance that is classified as: Suspected of causing genetic defects.

#### Carcinogenicity

**Carcinogenicity** The product contains a substance that is classified as: Suspected of causing cancer.

#### Reproductive toxicity

**Reproductive toxicity - development** The product contains a substance that is classified as: Suspected of damaging the unborn child.

#### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** The product contains a substance that is classified as: May cause damage to organs through prolonged or repeated exposure.

## Ifotec HC Film Developer

<b>Inhalation</b>	May cause respiratory system irritation.
<b>Ingestion</b>	May cause discomfort if swallowed.
<b>Skin contact</b>	Irritating to skin. May cause sensitisation by skin contact. May cause allergic contact eczema.
<b>Eye contact</b>	Irritation of eyes and mucous membranes. Repeated exposure may cause chronic eye irritation.
<b>Acute and chronic health hazards</b>	Prolonged or repeated exposure may cause severe irritation. May cause skin irritation/eczema. May cause sensitisation by skin contact. Irritating to eyes. Vapour or spray in the eyes may cause irritation and smarting. May cause allergy. May cause hypersensitivity.
<b>Route of exposure</b>	Skin and/or eye contact Ingestion.
<b>Medical considerations</b>	May aggravate existing: Skin disorders and allergies. Pre-existing eye problems.

### Toxicological information on ingredients.

#### DIETHANOLAMINE

##### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 1,600.0

Species Rat

ATE oral (mg/kg) 1,600.0

##### Carcinogenicity

IARC carcinogenicity IARC Group 2B Possibly carcinogenic to humans.

#### 2,2'-OXYBISETHANOL

##### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 1,000.0

Species Human

ATE oral (mg/kg) 1,000.0

#### HYDROQUINONE

##### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 375.0

Species Rat

ATE oral (mg/kg) 375.0

##### Carcinogenicity

IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.

#### 1-Phenyl-4-methyl-3-pyrazolidone

##### Acute toxicity - oral

Acute toxicity oral (LD<sub>50</sub> mg/kg) 627.0

## Ifotec HC Film Developer

<b>Species</b>	Rat
<b>ATE oral (mg/kg)</b>	627.0

### SECTION 12: Ecological information

#### 12.1. Toxicity

**Toxicity** The product contains a substance which is very toxic to aquatic organisms.

#### Ecological information on ingredients.

##### DIETHANOLAMINE

###### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: >100 mg/L (Fathead Minnow) mg/l, Fish

##### 2,2'-OXYBISETHANOL

###### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: >100 mg/l, Fish

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 0.3 - 1 mg/l, Daphnia magna

##### HYDROQUINONE

###### Acute aquatic toxicity

**LE(C)<sub>50</sub>** 0.01 < L(E)C<sub>50</sub> ≤ 0.1

**M factor (Acute)** 10

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 0.10-0.18 (Fathead Minnow) mg/l, Fish

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 0.05 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** IC<sub>50</sub>, 72 hours: 1.0 mg/l, Algae

#### 12.2. Persistence and degradability

**Persistence and 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

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

#### Ecological information on ingredients.

##### HYDROQUINONE

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

## Ilfotec HC Film Developer

### 12.6. Other adverse effects

**Other adverse effects**                      None known.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

**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.

**Waste class**                                      090101

### SECTION 14: Transport information

**General**                                      Exceptions relating to marine pollutants in small packages apply to this product, so that it is not required to be labelled or transported in accordance with dangerous goods regulations. See ADR SP 375, IATA SP A197, and IMDG 2.10.2.7.

#### 14.1. UN number

**UN No. (ADR/RID)**                      3082

**UN No. (IMDG)**                              3082

**UN No. (ICAO)**                              3082

#### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)**      UN3082, Environmentally hazardous substance, liquid, n.o.s. (contains hydroquinone).

**Proper shipping name (IMDG)**      UN3082, Environmentally hazardous substance, liquid, n.o.s. (contains hydroquinone).

**Proper shipping name (ICAO)**      UN3082, Environmentally hazardous substance, liquid, n.o.s. (contains hydroquinone).

**Proper shipping name (ADN)**      UN3082, Environmentally hazardous substance, liquid, n.o.s. (contains hydroquinone).

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

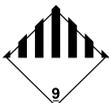
**ADR/RID class**                              9 (M6)

**ADR/RID label**                              9

**IMDG class**                                      9

**ICAO class/division**                      9

#### **Transport labels**



#### 14.4. Packing group

**ADR/RID packing group**                      III

**IMDG packing group**                        III

**ICAO packing group**                        III

#### 14.5. Environmental hazards

## Ifotec HC Film Developer

Environmentally hazardous substance/marine pollutant



### 14.6. Special precautions for user

EmS F-A, S-F

Tunnel restriction code (E)

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

## SECTION 15: Regulatory information

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

#### EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

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 (as amended).

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.

#### Guidance

Workplace Exposure Limits EH40.

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)

### 15.2. Chemical safety assessment

See the appended document: Safe Use of Mixtures Information (SUMI)

## SECTION 16: Other information

#### 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.

#### Key literature references and sources for data

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

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

#### Revision date

08/10/2019

## Ifotec HC Film Developer

<b>Revision</b>	3
<b>Supersedes date</b>	08/06/2018
<b>Hazard statements in full</b>	H302 Harmful if swallowed. 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. H341 Suspected of causing genetic defects. H351 Suspected of causing cancer. H361d Suspected of damaging the unborn child. H361fd Suspected of damaging fertility. Suspected of damaging the unborn child. H373 May cause damage to organs through prolonged or repeated exposure. H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.

# ILFORD PHOTO HARMAN technology Ltd

## Safe Use of Mixtures Information (SUMI)

### Automated Photoprocessing using Aqueous based Products

#### Disclaimer

*This SUMI is a generic document for communicating conditions of safe use of a product in response to the REACH obligation. This document relates only to conditions of safe use and is not specific to a product. By adding this SUMI to a specific product Safety Data Sheet (SDS), the importer/formulator declares that the mixture can safely be used following the instructions below. Following occupational health legislation, the employer of workers remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product. Derived No Effect Levels (DNEL) and Predicted No Effect Concentration (PNEC) values of substances derived from the Chemical Safety Assessment (CSA) will be given in section 8 of the SDS. The REACH registration numbers, where applicable, complete an extended product SDS.*

#### Operational conditions

<b>Maximum duration</b>	1 hour per day for delivery, storage, loading, cleaning and mixing operations. 4-8 hours per day for application.
<b>Frequency of exposure</b>	240 days per year.
<b>Physical state</b>	Aqueous solutions (aq).
<b>Process conditions</b>	Covers use at ambient temperatures. Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Keep emissions below the occupational exposure limits of the ingredients specified in section 8 of the SDS. Avoid direct contact. Regular cleaning of equipment and work area. Supervision in place to check that Risk Management Measures (RMM's) are in place and are being correctly used and Operational Conditions (OC's) followed.

#### Risk management measures

<b>Conditions and measures related to Personal Protection Equipment (PPE), hygiene and health evaluation</b>	<p>Delivery &amp; storage: Wear suitable gloves and labcoat.</p> <p>Application: Wear labcoat and if there is a chance of exposure wear suitable eye protection and suitable gloves.</p> <p>Loading/Cleaning/ Mixing: Wear suitable eye protection with side shield, suitable gloves and labcoat.</p> <p>Wear appropriate chemical resistant gloves: see Section 8 of the SDS.</p> <p>No respiratory protective equipment should be required under normal conditions of use provided that adequate ventilation is in place.</p> <p>Eye wash station and emergency showers are recommended.</p> <p>Avoid breathing mist/vapours.</p> <p>Avoid contact with skin, eyes and clothing.</p> <p>Training of workers in relation to proper use and maintenance of all Personal Protective Equipment must be ensured.</p>
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#### Good practice advice

Use personal protective equipment as required.  
Wash hands before breaks and after work.  
Keep good industrial hygiene and safety practice.  
Use only with adequate ventilation.  
Do not eat, drink or smoke when using this product.  
Wash contaminated clothing before reuse.  
Store at room temperature.



**Environmental measures**

Do not allow this material to drain into sewers/water supplies.  
Dispose of waste material according to Local, State, Federal and Provincial Environmental Regulations.  
Ensure collection and disposal with appropriately licenced waste contractor.  
Do not dispose of together with general office waste.

**Use descriptors**

IS- Use at industrial sites.

PW-Widespread use by professional workers.

SU7-Printing and reproduction of recorded media.

PC30-Photochemicals.

PROC1-Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC2-Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions.

PROC3- Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition.

PROC5- Mixing and blending in batch processes.

PROC8a-Transfer of substance or mixture (charging and discharging) at non-dedicated facilities.

PROC8b-Transfer of substance or mixture (charging and discharging) at dedicated facilities.

PROC13-Treatment of articles by dipping and pouring.

ERC6b-Use of reactive processing aid at industrial site (no inclusion into or onto article).

ERC8b-Widespread use of reactive processing aid (no inclusion into or onto article, indoor).

**Additional information on product composition**

In section 2 of the SDS as well as on the label, the classification of the mixture is provided.

All ingredients contributing to the classification are stated in Section 3 of the SDS.

Relevant limit values of ingredients on which the exposure assessment is based, are listed in section 8 of the SDS.

The product may contain sensitizing ingredients that may cause allergic reaction to certain people.

Section 2 of the SDS states these ingredients where applicable.

Note that this will be usually the concentrate needed to create the working strength (WS) solution. In some cases the product will be RTU (Ready to Use) and will not require diluting. Hence there is a need to estimate the WS composition on a cases by case basis.

Mixing aqueous solutions creates a slightly different risk management method than mixing powders as the latter is normally done by operators wearing respirators suitable for the particle size and hazard posed by the substance(s).

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## HARMAN technology Ltd

### Safe Use of Mixtures Information (SUMI)

## Photoprocessing Solutions from Liquid or Powder Concentrates: Manual Processing (Professional Use)

#### Disclaimer

*This SUMI is a generic document for communicating conditions of safe use of a product in response to the REACH obligation. This document relates only to conditions of safe use and is not specific to a product. By adding this SUMI to a specific product Safety Data Sheet (SDS), the importer/formulator declares that the mixture can safely be used following the instructions below. Following occupational health legislation, the employer of workers remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product. Derived No Effect Levels (DNEL) and Predicted No Effect Concentration (PNEC) values of substances derived from the Chemical Safety Assessment (CSA) will be given in section 8 of the SDS. The REACH registration numbers, where applicable, complete an extended product SDS.*

#### Operational conditions

<b>Maximum duration</b>	1 hour per day for diluting liquid concentrates or dissolving powders (when applicable).  1 hour per day for mixing and disposal activities. 6 hours per day for application (= processing).
<b>Frequency of exposure</b>	Dissolving powders: 25 days per year. Diluting liquids and all other activities: 50 days per year.
<b>Physical state</b>	As supplied: liquid concentrates or powder concentrates. As used, after making up: aqueous working solution.
<b>Process conditions</b>	Covers use at ambient temperatures. Provide a good standard of controlled ventilation (10 to 15 air changes per hour). Keep emissions below the occupational exposure limits of the ingredients specified in section 8 of the SDS. Avoid direct contact. Regular cleaning of equipment and work area.

#### Risk management measures

<b>Conditions and measures related to Personal Protection Equipment (PPE), hygiene and health evaluation</b>	<p>Wear safety glasses with side shields. Wear appropriate chemical resistant gloves: see section 8 of the SDS. Wear lab coat or overall. No respiratory protective equipment is required under normal conditions of use, provided that adequate ventilation is in place. Eye wash station and emergency showers are recommended. Avoid breathing dust (when handling powders), mist/vapours. Avoid contact with skin, eyes and clothing. Training of worker in relation to proper use and maintenance of the PPE must be ensured.</p>
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#### Good practice advice

Use personal protective equipment as required.  
Wash hands before breaks and after work.  
Keep good hygiene and safety practice.  
Use only with adequate ventilation.  
Do not eat, drink or smoke when using this product.



**Environmental measures**

Do not allow this material to drain into sewers/water supplies.  
Ensure collection and disposal with appropriately licenced waste contractor.  
Dispose of waste material according to Local, State, Federal and Provincial Environmental Regulations.

**Use descriptors**

PW-Widespread use by professional workers.

SU7-Printing and reproduction of recorded media.

PC30-Photochemicals.

PROC5-Mixing or blending in batch processes.

PROC8a-Transfer of substance or mixture (charging and discharging) at non-dedicated facilities.

PROC8b-Transfer of substance or mixture (charging and discharging) at dedicated facilities.

PROC13-Treatment of articles by dipping and pouring.

ERC8a-Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor).

ERC8b-Widespread use of reactive processing aid (no inclusion into or onto article, indoor).

**Additional information on product composition**

In section 2 of the SDS as well as on the label, the classification of the mixture as supplied is provided.

See section 3 of the SDS for information on the product's composition. Note that this information will be for the concentrate supplied, which is used to create the working strength (WS) solution.

Relevant limit values of ingredients on which the exposure assessment is based, are listed in section 8 of the SDS.

The product may contain sensitizing ingredients that may cause allergic reaction to certain people.

Section 2 of the SDS states these ingredients where applicable.

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## Safe Use of Mixtures Information (SUMI)

### Photoprocessing Solutions from Liquid or Powder Concentrates: Manual Processing (Consumer Use)

#### Disclaimer

*This SUMI is a generic document for communicating conditions of safe use of a product in response to the REACH obligation. This document relates only to conditions of safe use and is not specific to a product. By adding this SUMI to a specific product Safety Data Sheet (SDS), the importer/formulator declares that the mixture can safely be used following the instructions below. Following occupational health legislation, the employer of workers remains responsible for communicating relevant use information to employees. When developing workplace instructions for employees, SUMI Sheets should always be considered in combination with the SDS and the label of the product. Derived No Effect Levels (DNEL) and Predicted No Effect Concentration (PNEC) values of substances derived from the Chemical Safety Assessment (CSA) will be given in section 8 of the SDS. The REACH registration numbers, where applicable, complete an extended product SDS.*

#### Operational conditions

<b>Maximum duration</b>	15 minutes per day for dissolving powders (when applicable). 15 minutes per day for mixing and disposal activities. 4 hours per day for application (= processing).
<b>Frequency of exposure</b>	Dissolving powders: 12 days per year. Diluting liquids and all other activities: 25 days per year.
<b>Physical state</b>	As supplied: liquid concentrate or powder concentrate. As used, after making up: aqueous working strength solution.
<b>Process conditions</b>	Covers use at ambient temperatures. Provide a good standard of ventilation. Avoid direct contact. Regular cleaning of equipment and work area.

#### Risk management measures

<b>Conditions and measures related to Personal Protection Equipment (PPE), hygiene and health evaluation</b>	Wear safety glasses with side shields. Wear appropriate chemical resistant gloves: see section 8 of the SDS. Wear lab coat or overall. Provide adequate ventilation. Avoid breathing dust (when handling powders), mist/vapours. Avoid contact with skin, eyes and clothing.
	

#### Good practice advice

Use Personal Protective Equipment as required. Wash hands before breaks and after work. Use only with adequate ventilation. Do not eat, drink or smoke when using this product.	
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#### Environmental measures

Do not allow this material to drain into sewers/water supplies.  
Dispose of waste material according to Local, State, Federal and Provincial Environmental Regulations.

**Use descriptors**

C-Consumer use.

SU7-Printing and reproduction of recorded media.

PC30-Photochemicals.

PROC5-Mixing or blending in batch processes.

PROC8a-Transfer of substance or mixture (charging and discharging) at non-dedicated facilities.

PROC13-Treatment of articles by dipping and pouring.

ERC8a-Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor).

ERC8b-Widespread use of reactive processing aid (no inclusion into or onto article, indoor).

**Additional information on product composition**

In section 2 of the SDS as well as on the label, the classification of the mixture as supplied is provided.

See section 3 of the SDS for information on the product's composition.

Note that this information will be for the concentrate supplied, which is used to create the working strength (WS) solution.

The product may contain sensitizing ingredients that may cause allergic reaction to certain people.

Section 2 of the SDS states these ingredients where applicable.