ILFORD PHOTO
HARMAN technology Ltd

SAFETY DATA SHEET
Ilfotec DD Film Developer/ Replenisher
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 Ilfotec DD Film Developer/ Replenisher

Product number 1760109

Internal identification 10122

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.harmantechnology.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 Manager: Dr Lindsey Campbell Tel: +44(0)1565 650000, E-mail: lindsey.campbell@harmantechnology.com
Australia: Contact Distributor (http://www.crkennedy.com.au) 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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Eye Dam. 1 - H318 Skin Sens. 1 - H317 Muta. 2 - H341 Carc. 2 - H351

Environmental hazards Aquatic Acute 1 - H400

2.2. Label elements

Hazard pictograms

Signal word Danger

Ilfotec DD Film Developer/ Replenisher

Hazard statements

H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
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 clothing, gloves, eye and face protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 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

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

2,2'-OXYBISETHANOL **1-5%**

CAS number: 111-46-6 EC number: 203-872-2 REACH registration number: 01-2119457857-21-XXXX

Classification
Acute Tox. 4 - H302

HYDROQUINONE **1-5%**

CAS number: 123-31-9 EC number: 204-617-8 REACH registration number: 01-2119524016-51-XXXX

M factor (Acute) = 10

Classification
Acute Tox. 4 - H302
Eye Dam. 1 - H318
Skin Sens. 1 - H317
Muta. 2 - H341
Carc. 2 - H351
Aquatic Acute 1 - H400

Disodium Tetraborate decahydrate **1-5%**

CAS number: 1303-96-4 EC number: 215-540-4 REACH registration number: 01-2119490790-32-XXXX

Substance of very high concern (SVHC).

Classification
Eye Irrit. 2 - H319
Repr. 1B - H360FD

Ilfotec DD Film Developer/ Replenisher

Boric Acid			**1-5%**
CAS number: 10043-35-3	EC number: 233-139-2	REACH registration number: 01-2119486683-25-XXXX	
Substance of very high concern (SVHC).			
Classification Repr. 1B - H360FD			
pentasodium (carboxylatomethyl)iminobis(ethylenenitrilo)tetraacetate			**<1%**
CAS number: 140-01-2	EC number: 205-391-3	REACH registration number: 01-2119474445-33-XXXX	
Classification Acute Tox. 4 - H332 Repr. 2 - H361fd STOT RE 2 - H373			
1-Phenyl-4-methyl-4-hydroxymethyl-3-pyrazolidone			**<1%**
CAS number: 13047-13-7	EC number: 235-920-3		
Classification Acute Tox. 4 - H302 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411			

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

Inhalation Move affected person to fresh air at once. Get medical attention if any discomfort continues.

Ingestion Rinse mouth thoroughly with water. 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. Get medical attention if irritation persists after washing.

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. 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.

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

Notes for the doctor No specific recommendations.

SECTION 5: Firefighting measures

Ilfotec DD Film Developer/ Replenisher

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Specific hazards The product is non-combustible. No unusual fire or explosion hazards noted.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Oxides of: Carbon. Sulphur. Nitrogen. Sodium. Potassium.

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.

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

Ilfotec DD Film Developer/ Replenisher

Long-term exposure limit (8-hour TWA): WEL 23 ppm 101 mg/m³

HYDROQUINONE

Long-term exposure limit (8-hour TWA): WEL 0.5 mg/m³

Disodium Tetraborate decahydrate

Long-term exposure limit (8-hour TWA): WEL 5 mg/m³
WEL = Workplace Exposure Limit.

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

DNEL

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/m³
Industry - Inhalation; Long term local effects: 60 mg/m³

PNEC

- 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)

DNEL

Industry/Professional - Dermal; Long term systemic effects: 128 mg/kg/day
Industry/Professional - Inhalation; Long term systemic effects: 7 mg/m³
Industry/Professional - Inhalation; Long term local effects: 1 mg/m³
General population - Dermal; Long term systemic effects: 64 mg/kg/day
General population - Inhalation; Long term systemic effects: 1.74 mg/m³
General population - Inhalation; Long term local effects: 0.5 mg/m³

PNEC

- 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

Disodium Tetraborate decahydrate (CAS: 1303-96-4)

DNEL

Workers - Inhalation; Short term local effects: 22.3 mg/m³
Workers - Inhalation; Long term local effects: 22.3 mg/m³
Workers - Dermal; Long term systemic effects: 599.6 mg/kg/day
Consumer - Inhalation; Short term local effects: 22.3 mg/m³
Consumer - Inhalation; Long term local effects: 22.3 mg/m³
Consumer - Inhalation; Long term systemic effects: 6.5 mg/m³
Consumer - Dermal; Long term systemic effects: 303.5 mg/kg/day
Consumer - Oral; Short term systemic effects: 1.51 mg/kg/day
Consumer - Oral; Long term systemic effects: 1.51 mg/kg/day

Ilfotec DD Film Developer/ Replenisher

PNEC

- Fresh water; 1.35 mg/l
- marine water; 1.35 mg/l
- Intermittent release; 9.1 mg/l
- STP; 1.75 mg/l
- Sediment (Freshwater); 1.8 mg/kg
- Sediment (Marinewater); 1.8 mg/kg
- Soil; 5.4 mg/kg

Boric Acid (CAS: 10043-35-3)

DNEL

General population - Oral; Long term systemic effects: 0.98 mg/kg/day
General population - Dermal; Long term systemic effects: 196 mg/kg/day
Workers - Dermal; Long term systemic effects: 392 mg/kg/day
General population - Inhalation; Long term systemic effects: 4.15 mg/m³
Workers - Inhalation; Long term systemic effects: 8.3 mg/m³

PNEC

- Soil; 5.4 mg/kg
- STP; 10 mg/l
- Fresh water; 2.02 mg/l
- marine water; 2.02 mg/l

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

DNEL

Workers - Inhalation; Long term systemic effects: 1.5 mg/m³

PNEC

- 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

Appearance

Clear liquid.

Colour

Colourless.

Ilfotec DD Film Developer/ Replenisher

Odour	No characteristic odour.
pH	pH (concentrated solution): 8.7
Initial boiling point and range	>100°C @ 760 mm Hg
Relative density	1.30 @ 20°C
Solubility(ies)	100% Soluble in water.

9.2. Other information

Other information	Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	See the other subsections of this section for further details.

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: Oxides of: Carbon. Sulphur. Nitrogen. Potassium. Sodium.

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)	7,804.72

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 - fertility	The product contains a substance that is classified as: May damage fertility. May damage the unborn child.
Reproductive toxicity - development	The product contains a substance that is classified as: May damage fertility. May damage the unborn child.

Specific target organ toxicity - repeated exposure

Ilfotec DD Film Developer/ Replenisher

STOT - repeated exposure	The product contains a substance that is classified as: May cause damage to organs through prolonged or repeated exposure if inhaled.
Inhalation	May cause respiratory system irritation.
Ingestion	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.
Acute and chronic health hazards	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.
Route of exposure	Skin and/or eye contact Ingestion.
Medical considerations	May aggravate existing: Skin disorders and allergies. Pre-existing eye problems.

Toxicological information on ingredients.

2,2'-OXYBISETHANOL

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	1,000.0
Species	Human
ATE oral (mg/kg)	1,000.0

HYDROQUINONE

Acute toxicity - oral

Acute toxicity oral (LD_{50} 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.

pentasodium (carboxylatomethyl)iminobis(ethylenenitrilo)tetraacetate

Acute toxicity - inhalation

ATE inhalation (gases ppm)	4,500.0
ATE inhalation (vapours mg/l)	11.0
ATE inhalation (dusts/mists mg/l)	1.5

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

Acute toxicity - oral

Ilfotec DD Film Developer/ Replenisher

Acute toxicity oral (LD_{50} mg/kg)	566.0
Species	Rat
ATE oral (mg/kg)	566.0

SECTION 12: Ecological information

12.1. Toxicity

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

Ecological information on ingredients.

2,2'-OXYBISETHANOL

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: >100 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 0.3 - 1 mg/l, Daphnia magna

HYDROQUINONE

Acute aquatic toxicity

$LE(C)_{50}$	0.01 < L(E)C50 ≤ 0.1
M factor (Acute)	10
Acute toxicity - fish	LC_{50}, 96 hours: 0.10-0.18 (Fathead Minnow) mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 0.05 mg/l, Daphnia magna
Acute toxicity - aquatic plants	IC_{50}, 72 hours: 1.0 mg/l, Algae

Boric Acid

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: 600 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 115-153 mg/l, Daphnia magna

pentasodium (carboxylatomethyl)iminobis(ethylenenitrilo)tetraacetate

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: >1000 (lepomis macrochirus) mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: >500 (daphnia magna) mg/l, Daphnia magna

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

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hours: 32 (Rainbow Trout) mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 1.7 mg/l, Daphnia magna

Ilfotec DD Film Developer/ Replenisher

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.

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 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)

Ilfotec DD Film Developer/ Replenisher

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

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)

Ilfotec DD Film Developer/ Replenisher

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	Mr James Cooper, HARMAN Technology Ltd, Mobberley, Knutsford, Cheshire, WA16 7GB, ENGLAND, United Kingdom, Tel.: +44(0)1565 650000 email: james.cooper@harmantechnology.com
Revision date	16/09/2022
Revision	4
Supersedes date	12/01/2021
Hazard statements in full	H302 Harmful if swallowed. 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. H360FD May damage fertility. May damage 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.

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

Maximum duration	1 hour per day for delivery, storage, loading, cleaning and mixing operations. 4-8 hours per day for application.
Frequency of exposure	240 days per year.
Physical state	Aqueous solutions (aq).
Process conditions	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

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

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).