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HARMAN technology Ltd

SAFETY DATA SHEET

2000RT Fixer/ 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	2000RT Fixer/ Replenisher
Product number	1758524
Internal identification	10123
Container size	5 Litre

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

Identified uses	Photographic Fixer 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. (http://www.harmanotechnology.com) Australia: CR Kennedy & Co Pty Ltd, 663 Chapel Street, South Yarra, Victoria 3141, Australia. Tel: 03 9823 1555, Fax: 03 9827 7216
Contact person	UK: HS&E Manager: Dr Lindsey Campbell Tel: +44(0)1565 650000, E-mail: lindsey.campbell@harmanotechnology.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
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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	Skin Irrit. 2 - H315 Eye Irrit. 2 - H319
Environmental hazards	Not Classified

2.2. Label elements

Hazard pictograms



Signal word	Warning
Hazard statements	H315 Causes skin irritation. H319 Causes serious eye irritation.

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Precautionary statements	P102 Keep out of reach of children.
	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.
	P501 Dispose of contents/ container in accordance with local regulations.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Ammonium Thiosulphate			30-60%
CAS number: 7783-18-8	EC number: 231-982-0	REACH registration number: 01-2119537325-41-XXXX	

Classification
Not Classified

SODIUM BISULPHITE%			1-5%
CAS number: 7631-90-5	EC number: 231-548-0		

Classification
Acute Tox. 4 - H302

Acetic acid			< 2%
CAS number: 64-19-7	EC number: 200-580-7	REACH registration number: 01-2119475328-30-XXXX	

Classification
Flam. Liq. 3 - H226
Skin Corr. 1A - H314
Eye Dam. 1 - H318

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. 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.

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Skin contact This product is moderately irritating.

Eye contact Irritating.

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 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. Oxides of nitrogen. Oxides of sulphur. Ammonia.

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.

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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

SODIUM BISULPHITE%

Long-term exposure limit (8-hour TWA): WEL 5 mg/m³

WEL = Workplace Exposure Limit.

Ammonium Thiosulphate (CAS: 7783-18-8)

DNEL	General population - Inhalation; Long term systemic effects: 104 mg/m ³
PNEC	- Fresh water; 0.78 mg/l - marine water; 0.08 mg/l

Acetic acid (CAS: 64-19-7)

DNEL	Workers - Inhalation; Short term local effects: 25 mg/m ³ Workers - Inhalation; Long term local effects: 25 mg/m ³ Consumer - Inhalation; Long term local effects: 25 mg/m ³
PNEC	- Fresh water; Short term 3.058 mg/l - marine water; Short term 0.3058 mg/l - STP; Short term 85 mg/l

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	Liquid.
Colour	Green-yellow.
Odour	Slight pungent.
pH	pH (concentrated solution): 5.1
Melting point	<0°C

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Initial boiling point and range	>100°C @ 760 mm Hg
Evaporation rate	~ 1 H ₂ O (water)=1
Vapour pressure	Data lacking.
Relative density	1.34 @ 20°C
Solubility(ies)	Soluble in water. 100%

9.2. Other information

Other information	Not available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

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

Stability	Stable under the prescribed storage conditions. No particular stability concerns.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Under normal conditions of storage and use, no hazardous reactions will occur.
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10.4. Conditions to avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time. Avoid contact with acids and alkalis.
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10.5. Incompatible materials

Materials to avoid	Strong acids. Strong alkalis. Avoid contact with other photographic solutions and/or cleaning compounds.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion products may include the following substances: Irritating gases or vapours. Ammonia or amines. Sulphur dioxide. Oxides of carbon. Oxides of nitrogen.
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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.
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Acute toxicity - oral

ATE oral (mg/kg)	12,834.33
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Inhalation	No specific health hazards known.
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Ingestion	No specific health hazards known.
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Skin contact	This product is moderately irritating.
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Eye contact	Irritating to eyes.
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Acute and chronic health hazards	No known chronic or acute health risks.
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Route of exposure	Ingestion. Skin and/or eye contact
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SECTION 12: Ecological information

Ecotoxicity Not regarded as dangerous for the environment.

12.1. Toxicity

Toxicity Not considered toxic to fish.

Ecological information on ingredients.

Acetic acid

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >100 mg/l, Fish

12.2. Persistence and degradability

Persistence and 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

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

12.6. Other adverse effects

Other adverse effects The product may contribute to an excessive enrichment of the aquatic environment with nutrients.

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 090104

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

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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 MARPOL and the IBC Code

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

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 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).

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).

Guidance

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

No chemical safety assessment has been carried out. 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 Dangerous Properties of Industrial Chemicals, 6.edition, N.Sax, 1984. Material Safety Data Sheet, Misc. manufacturers.

Issued by

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Revision date

16/09/2022

2000RT Fixer/ Replenisher

Revision	4
Supersedes date	11/01/2021
Hazard statements in full	H226 Flammable liquid and vapour. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation.

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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	<p>Delivery & 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).