**ILFORD** PHOTO

# HARMAN technology Ltd

# SAFETY DATA SHEET

### **Rapid Fixer**

According to WHMIS 2015, in compliance with the Hazardous Product Act (HPA, as amended) and the requirements of the Hazardous Product Regulations (HPR)

1. Identification	
Product identifier	
Product name	Rapid Fixer
Product number	1984253, 1984262, 1984565
Internal identification	10023
Container size	500ml, 1 Litre, 5 Litre
Recommended use of the che	emical and restrictions on use
Restriction on use	Photographic Fixer Solution
Details of the supplier of the s	afety data sheet
Supplier	Distributor Amplis Foto Inc, 22 Telson Road, Markham, Ontario L3R 1E5 Tel: 905 477 4111 Fax: 905 477 2502
Contact person	Contact Distributor: christine@amplis.com, http://www.amplis.com
Emergency telephone numbe	<u>r</u>
Emergency telephone	Canada/USA: For medical emergency, call 1 800 842 9660 (Product Misuse).
2. Hazard identification	
Classification of the substance	e or mixture
Physical hazards	Not Classified
Health hazards	Skin Irrit. 2 - H315 Eye Irrit. 2 - H319
Environmental hazards	Not Classified
Label elements	
Hazard pictograms	
Signal word	Warning
Hazard statements	H315 Causes skin irritation. H319 Causes serious eye irritation.

### **Rapid Fixer**

Precautionary statements	P101 If medical advice is needed, have product container or label at hand. 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.

#### Other hazards

Ingestion

No information available.

Mixtures	
Ammonium Thiosulphate	36-50%
CAS number: 7783-18-8	
Classification	
Not Classified	
SODIUM BISULPHITE%	1-5%
CAS number: 7631-90-5	
Classification	
Acute Tox. 4 - H302	
Acetic acid	< 2%
CAS number: 64-19-7	
Classification	
Flam. Liq. 3 - H226	
Skin Corr. 1A - H314	
Eye Dam. 1 - H318	

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures	
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.
Most important symptoms and effects, both acute and delayed	
Inhalation	No specific symptoms known.

No specific symptoms known.

Skin contact This product is moderately irritating.   Eye contact irritating.   Indication of any immediate medical attention and special treatment needed Notes for the doctor   Notes for the doctor No specific recommendations.   5. Fire-fighting measures Extinguishing media   Suttable extinguishing media The product is non-combustible. Use extinguishing media appropriate for surrounding fire.   Specific hazards arising from the hazardous product Specific hazards arising from the hazardous combustion products may include the following substances: Oxides products and introgen. Oxides of sulfur. Ammonia.   Advice for firefighters Protective actions during avoid breathing fire gases or vapours.   Frefighting Avoid breathing fire gases or vapours.   6. Accidental release measures Personal procedures   Personal procesuitons Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8.   Environmental precautions Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.   Methods for cleaning up Wear protective cluting drains, severs or watercourses.   Reference to other sections For years or watercourses.   Precoutions for sefs handling Provide adequate ventilation. Section 13.   Methods for cleaning up Wear protective cluting drains, severs or watercourses.   Reference to other s		
Indication of any immediate medical attention and special treatment needed       Notes for the doctor     No specific recommendations.       S. Fire-fighting measures     Extinguishing media       Sutable extinguishing media     The product is non-combustible. Use extinguishing media appropriate for surrounding fire.       Specific hazards arising from the hazardous product     The product is non-combustible. No unusual fire or explosion hazards noted.       Hazardous combustion     Themail decomposition or combustion products may include the following substances: Oxides of actron. Oxides of nitrogen. Oxides of suffur. Ammonia.       Advice for firefighters     Protective actions during fire gases or vapours.       Frefighting     Avoid breathing fire gases or vapours.       Special protective equipment     Use protective equipment appropriate for surrounding materials. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.       8. Accidential releases measures     Personal precautions, protective equipment and emergency procedures       Personal precautions     Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.       Methods and material for contisment and cleaning up     Wear protective equipment and energency section 8. For waste disposal, see Section 13.       Reference to other sections     For personal protection, see Section 8. For waste d	Skin contact	This product is moderately irritating.
Notes for the doctor     No specific recommendations.       5. Fire-fighting measures       Extinguishing media       Sultable extinguishing media       Sultable extinguishing media       Specific hazards arising from the hazardous product       Specific hazards     The product is non-combustible. No unusual fire or explosion hazards noted.       Hazardous combustion     Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Ammonia.       Advice for firefighters     Protective actions during     Avoid breathing fire gases or vapours.       Protective actions during     Avoid breathing fire gases or vapours.     firefighters       Protective actions during     Avoid breathing fire gases or vapours.     firefighters       Protective actions. protective equipment appropriate for surrounding materials. Selection of respiratory for firefighters     protective equipment appropriate for surrounding materials. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.       6. Accidental release measures     Personal procautions     Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8.       Environmental precautions     Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13. <th>Eye contact</th> <th>Irritating.</th>	Eye contact	Irritating.
5. Fire-fighting measures     Extinguishing media     Suitable extinguishing media   The product is non-combustible. Use extinguishing media appropriate for surrounding fire.     Specific hazards arising from the hazardous product   Specific hazards and an extinguishing media     Specific hazards arising from the hazardous product   The product is non-combustible. No unusual fire or explosion hazards noted.     Hazardous combustion products may include the following substances: Oxides of actron. Oxides of nitrogen. Oxides of suffur. Ammonia.   Advice for firefighters     Protective actions during firefighters   Avoid breathing fire gases or vapours.   firefighting     Special protective equipment   Use protective equipment appropriate for surrounding materials. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.     6. Accidental release measures   Personal precautions.   For vice of the section is not explained in the workplace.     Personal precautions   Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.     Methods and material for containment and cleaning up   Wear protective clobing, gloves, eye and face protection. Small Spillages: Flush away spillage with plenty of water. Large Spillages: Aboot in vermiculite, dry sand or earth and place into containers. Flush containinated area with plenty of water. Avoid the spillage or runoff entering drains, severs or watercourses. <t< th=""><th colspan="2">Indication of any immediate medical attention and special treatment needed</th></t<>	Indication of any immediate medical attention and special treatment needed	
Extinguishing media     Sultable extinguishing media     Sultable extinguishing media     Specific hazards arising from the hazardous product     Specific hazards   The product is non-combustible. No unusual fire or explosion hazards noted.     Hazardous combustion   The product is non-combustible. No unusual fire or explosion hazards noted.     Hazardous combustion   The product is non-combustible. No unusual fire or explosion hazards noted.     Hazardous combustion   The product is non-combustible. No unusual fire or explosion hazards noted.     Hazardous combustion   The product is non-combustible. No unusual fire or explosion hazards noted.     Hazardous combustion   The product is non-combustible. No unusual fire or explosion hazards noted.     Hazardous combustion   The product is non-combustible. No unusual fire or explosion hazards noted.     Hazardous combustion   The product is non-combustible. No unusual fire or explosion hazards noted.     Advice for firefighters   or carbon. Oxides of sulfar. Ammonia.     Advice for firefighters   protective equipment appropriate for surrounding materials. Selection of respiratory protection for fire fighting: follow the general fire precautions. Indicated in the workplace.     6. Accidental release measures   Personal procautions, protective equipment and emergency procedures     Personal procautions   Do not discharge into drains or water	Notes for the doctor	No specific recommendations.
Suitable extinguishing media     The product is non-combustible. Use extinguishing media appropriate for surrounding fire.       Specific hazards arising from the hazardous product     Specific hazards arising from the hazardous product       Specific hazards     The product is non-combustible. No unusual fire or explosion hazards noted.       Hazardous combustion     Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Ammonia.       Advice for firefighters     Protective equipment to a product is product is product appropriate for surrounding materials. Selection of respiratory protective equipment appropriate for surrounding materials. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.       6. Accidental release measures     Personal precautions, protective equipment and emergency procedures       Personal precautions     Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.       Methods for cleaning up     Wear protective colthing, gloves, eye and face protection. Small Spillages: Flush away spillage with plenty of water. Large Spillages: Absorb in vermiculte, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, severs or watercourses.       Reference to other sections     For personal protective output of water. Large Spillages: Absorb in vermiculte, dry sand or earth and place into containers. Flush contaminated area with plent	5. Fire-fighting measures	
Specific hazards arising from the hazardous product     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 sulfur. Ammonia.     Advice for firefighters   Protective actions during firefighting   Avoid breathing fire gases or vapours.     Special protective equipment firefighting   Use protective equipment appropriate for surrounding materials. Selection of respiratory protection for fire fighters     Personal precautions, protective equipment and emergency procedures     Personal precautions   Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8.     Environmental precautions   Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.     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 containined area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.     Reference to other sections   For personal protection, see Section 8. For waste disposal, see Section 13.     1. Handling and storage   Provide adequate ventilation. Avoid spilling. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this pro	Extinguishing media	
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 sulfur. Ammonia.     Advice for firefighters   Protective actions during firefighting   Avoid breathing fire gases or vapours.     Special protective equipment   Use protective equipment appropriate for surrounding materials. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.     6. Accidental release measures   Personal precautions, protective equipment and emergency procedures     Personal precautions   Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8.     Environmental precautions   Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.     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 containarised area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.     Reference to other sections   For personal protection, see Section 8. For waste disposal, see Section 13.     7. Handling and storage   Provide adequate ventilation. Avoid spilling. Avoid contact with skin and eyes. Do not eat, drink or smoke when	Suitable extinguishing media	The product is non-combustible. Use extinguishing media appropriate for surrounding fire.
Hazardous combustion products   Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Ammonia.     Advice for firefighters   Protective actions during the fighting   Avoid breathing fire gases or vapours.     Special protective equipment to firefighting:   Special protective equipment or fire fighting: follow the general fire precautions indicated in the workplace.     6. Accidental release measures   Personal precautions, protective equipment and emergency procedures     Personal precautions   Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8.     Environmental precautions   Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.     Methods and material for contalment and cleaning up   Wear protective clothing, gloves, eye and face protection. Small Spillages: Flush away spillage with plenty of water. Large Spillages: Absorb in verniculite, 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.     Reference to other sections   For personal protection, see Section 8. For waste disposal, see Section 13.     Thermaling and storage   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.     Conditions for safe storage, including any incompatibilities	Specific hazards arising from t	he hazardous product
products     of carbon. Oxides of nitrogen. Oxides of sulfur. Ammonia.       Advice for firefighters     Avoid breathing fire gases or vapours.       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.       6. Accidental release measures     Personal precautions, protective equipment and emergency procedures       Personal precautions     Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8.       Environmental precautions     Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.       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 verniculite, 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.       Reference to other sections     For personal protection, see Section 8. For waste disposal, see Section 13.       Juage precautions     For vicie 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.       Zoriditions for safe storage, inci	Specific hazards	The product is non-combustible. No unusual fire or explosion hazards noted.
Protective actions during firefighting   Avoid breathing fire gases or vapours.     Special protective equipment for firefighting:   Use protective equipment appropriate for surrounding materials. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.     6. Accidental release measures   Personal precautions, protective equipment and emergency procedures     Personal precautions   Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8.     Environmental precautions   Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.     Methods and material for containment and cleaning up   Wear protective clothing, gloves, eye and face protection. Small Spillages: Flush away spillage into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.     Reference to other sections   For personal protection, see Section 8. For waste disposal, see Section 13.     7. Handling and storage   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.     Conditions for safe storage, including any incompatibilities   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		
firefighting   Use protective equipment of frefighters   Use protective equipment appropriate for surrounding materials. Selection of respiratory protection for fire fighting; follow the general fire precautions indicated in the workplace.     6. Accidental release measures   Personal precautions, protective equipment and emergency procedures     Personal precautions   Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8.     Environmental precautions   Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.     Methods and material for containment and cleaning up   Mear 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.     Reference to other sections   For personal protection, see Section 8. For waste disposal, see Section 13.     7. Handling and storage   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.     Conditions for safe storage, including any incompatibilities   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.	Advice for firefighters	
for firefighters   protection for fire fighting: follow the general fire precautions indicated in the workplace.     6. Accidental release measures     Personal precautions, protective equipment and emergency procedures     Personal precautions   Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8.     Environmental precautions   Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.     Methods and material for containment and cleaning up   Wear protective clubing, 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.     Reference to other sections   For personal protection, see Section 8. For waste disposal, see Section 13.     7. Handling and storage   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.     Conditions for safe storage, including any incompatibilities   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.	~	Avoid breathing fire gases or vapours.
Personal precautions, protective equipment and emergency procedures     Personal precautions   Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8.     Environmental precautions   Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.     Methods and material for containment and 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.     Reference to other sections   For personal protection, see Section 8. For waste disposal, see Section 13.     7. Handling and storage   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.     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.		
Personal precautions   Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8.     Environmental precautions   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.     Methods and material for containment and 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.     Reference to other sections   For personal protection, see Section 8. For waste disposal, see Section 13.     7. Handling and storage   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.     Conditions for safe storage, including any incompatibilities   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.	6. Accidental release measures	
Section 8.     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.     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.     Reference to other sections   For personal protection, see Section 8. For waste disposal, see Section 13.     7. Handling and storage   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.     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.	Personal precautions, protectiv	ve equipment and emergency procedures
Environmental precautions   Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.     Methods and material for containment and cleaning up   Methods for 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.     Reference to other sections   For personal protection, see Section 8. For waste disposal, see Section 13.     7. Handling and storage   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.     Conditions for safe storage, including any incompatibilities   Storage precautions     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.	Personal precautions	
spillage as indicated in Section 13.     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.     Reference to other sections   For personal protection, see Section 8. For waste disposal, see Section 13.     7. Handling and storage   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.     Conditions for safe storage, incluing any incompatibilities   Storage precautions     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.	Environmental precautions	
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.     Reference to other sections   For personal protection, see Section 8. For waste disposal, see Section 13.     7. Handling and storage   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.     Conditions for safe storage, including any incompatibilities   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.	Environmental precautions	
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.Reference to other sections Reference to other sectionsFor personal protection, see Section 8. For waste disposal, see Section 13.7. Handling and storagePrecautions for safe handlingUsage precautionsProvide 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.Conditions for safe storage, including any incompatibilitiesStorage precautionsStore 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.	Methods and material for conta	ainment and cleaning up
Reference to other sections   For personal protection, see Section 8. For waste disposal, see Section 13.     7. Handling and storage   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.     Conditions for safe storage, including any incompatibilities   Storage precautions     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.	Methods for cleaning up	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
7. Handling and storage     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.     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.	Reference to other sections	
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.     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.	Reference to other sections	For personal protection, see Section 8. For waste disposal, see Section 13.
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.     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.	7. Handling and storage	
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.	Precautions for safe handling	
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.	Usage precautions	
useable condition throughout its specified shelf life: Store at temperatures above 0°C. Store at temperatures not exceeding 30°C.	Conditions for safe storage, in	cluding any incompatibilities
Storage class Chemical storage.	Storage precautions	useable condition throughout its specified shelf life: Store at temperatures above 0°C. Store at
	Storage class	Chemical storage.
Specific end use(s)	Specific end use(s)	

#### Specific end use(s)

The identified uses for this product are detailed in Section 1.

#### 8. Exposure controls/Personal protection

#### **Control parameters**

#### Occupational exposure limits

#### SODIUM BISULPHITE ....%

Long-term exposure limit (8-hour TWA): ACGIH 5 mg/m<sup>3</sup> A4

#### Acetic acid

Long-term exposure limit (8-hour TWA): ACGIH 10 ppm 25 mg/m<sup>3</sup> Short-term exposure limit (15-minute): ACGIH 15 ppm 37 mg/m<sup>3</sup> ACGIH = American Conference of Governmental Industrial Hygienists. A4 = Not Classifiable as a Human Carcinogen.

#### 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.

#### 9. Physical and chemical properties

#### Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Green-yellow.
Odour	Slight pungent.
рН	pH (concentrated solution): 5.1
Melting point	<0°C
Initial boiling point and range	>100°C @ 760 mm Hg
Evaporation rate	~ 1 H2O (water)=1
Vapour pressure	Data lacking.
Relative density	1.34 @ 20°C
Solubility(ies)	Soluble in water. 100%
Other information	Not available.
10. Stability and reactivity	

Reactivity	See the other subsections of this section for further details.
Stability	Stable under the prescribed storage conditions. No particular stability concerns.
Possibility of hazardous reactions	Under normal conditions of storage and use, no hazardous reactions will occur.
Conditions to avoid	Avoid excessive heat for prolonged periods of time. Avoid contact with acids and alkalis.
Materials to avoid	Strong acids. Strong alkalis. Avoid contact with other photographic solutions and/or cleaning compounds.
Hazardous decomposition products	Thermal decomposition or combustion products may include the following substances: Irritating gases or vapours. Ammonia or amines. Sulfur dioxide. Oxides of carbon. Oxides of nitrogen.
11. Toxicological information	
Information on toxicological ef	ffects
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)	12,834.33
Inhalation	No specific health hazards known.
Ingestion	No specific health hazards known.
Skin contact	This product is moderately irritating.
Eye contact	Irritating to eyes.
Acute and chronic health hazards	No known chronic or acute health risks.
Route of exposure	Ingestion. Skin and/or eye contact
12. Ecological information	
Ecotoxicity	Not regarded as dangerous for the environment.
Toxicity	Not considered toxic to fish.
Ecological information on ingredients	
	Acetic acid
Acute aquatic toxicity	
Acute toxicity - fish LC <sub>50</sub> , 96 hours: >100 mg/l, Fish	
Persistence and degradability	
Persistence and degradability	No data available.
Bioaccumulative potential	
Bioaccumulative potential	No data available on bioaccumulation.
Mobility in soil	

Mobility	The product is soluble in water.
Other adverse effects	
Other adverse effects	The product may contribute to an excessive enrichment of the aquatic environment with nutrients.
13. Disposal considerations	
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.
14. Transport information	
General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, TDG).
UN number	
UN No. (International)	Not applicable.
UN proper shipping name	
Proper shipping name (International)	Not applicable.
Transport hazard class(es)	
Transport Labels (International)	Not applicable.
<b>Transport labels</b> No transport warning sign req	uired.
DOT transport label	
Packing group	
Packing group (International)	Not applicable.
Environmental hazards	
Environmentally hazardous su No.	ibstance/marine pollutant
Special precautions for user	
Not applicable.	
DOT TIH Zone	Not applicable.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.
15. Regulatory information	

#### Inventories

Canada – DSL/NDSL	
Ammonium Thiosulphate	
Water	
Sodium Acetate	
SODIUM BISULPHITE%	
Acetic acid	
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	HS&E Advisor Dr Trevor Rhodes Tel: +44(0)1565 650000, email: trevor.rhodes@harmantechnology.com
Revision date	2017-06-20
Revision	2
Supersedes date	14/05/2015
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.