ILFORD PHOTO

HARMAN technology Ltd

SAFETY DATA SHEET

HARMAN Toner Selenium

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification			
Product identifier			
Product name	HARMAN Toner Selenium		
Product number	1143207		
Internal identification	10477		
Container size	1 Liter		
Recommended use of the che	Recommended use of the chemical and restrictions on use		
Application	Toning solution for monochrome prints		
Details of the supplier of the s	afety data sheet		
Supplier	Distributor USA: Robert Distributors, 220 East Saint Clair St, Indianapolis, IN 46204 Tel:877-281-6405		
Contact Person Emergency telephone number	Contact Distributor: sales@robertsdistributors.com		
Emergency telephone	USA/Canada: For medical emergency, call 1 800 842 9660 (Product Misuse).		
2. Hazard(s) identification			
Classification of the substance	e or mixture		
Physical hazards	Not Classified		
Health hazards	Acute Tox. 4 - H302 Skin Sens. 1 - H317		
Environmental hazards	Not Classified		
Label elements			
Pictogram			
Signal word	Warning		
Hazard statements	H302 Harmful if swallowed. H317 May cause an allergic skin reaction.		

Contains	SODIUM SELENITE	
Other hazards		
No information available.		
3. Composition/information on i	ngredients	
Mixtures		
Ammonium Thiosulphate		10-30%
CAS number: 7783-18-8		
Classification Not Classified		
Sodium Sulfite		10-30%
CAS number: 7757-83-7		
Classification Not Classified		
SODIUM SELENITE		1-5%
CAS number: 10102-18-8		
Classification Acute Tox. 2 - H300 Acute Tox. 3 - H331 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411		
The full text for all hazard state	ments 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.

Ingestion	No specific symptoms known.
Skin contact	May cause skin sensitisation.
	May cause severe eye irritation.
Eye contact	
	al attention and special treatment needed
Notes for the doctor	No specific recommendations.
5. Fire-fighting measures	
Extinguishing media	
Suitable extinguishing media	The product is non-combustible. Use fire-extinguishing media suitable for the surrounding fire.
Special hazards arising from t	he substance or mixture
Specific hazards	The product is non-combustible. Toxic gases or vapors. No unusual fire or explosion hazards noted.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Ammonia. Selenium
	Oxides of: Nitrogen. Sulfur. Sodium. Selenium
Advice for firefighters	
Protective actions during firefighting	Avoid breathing fire gases or vapors.
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.
	protection for the lighting. To low the general the precations indicated in the workplace.
6. Accidental release measure	
6. Accidental release measure	
6. Accidental release measure	PS
6. Accidental release measure Personal precautions, protecti	ve equipment and emergency procedures Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see
6. Accidental release measure Personal precautions, protecti Personal precautions	ve equipment and emergency procedures Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see
6. Accidental release measure Personal precautions, protecti Personal precautions Environmental precautions Environmental precautions	we equipment and emergency procedures Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8. Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.
6. Accidental release measure Personal precautions, protecti Personal precautions Environmental precautions	we equipment and emergency procedures Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8. Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13.
6. Accidental release measure Personal precautions, protecti Personal precautions <u>Environmental precautions</u> Environmental precautions Methods and material for cont	ve equipment and emergency procedures Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8. Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13. ainment and cleaning up For waste disposal, see Section 13. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Flush away spillage with plenty of water. 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
6. Accidental release measure Personal precautions, protecti Personal precautions Environmental precautions Environmental precautions Methods and material for cont Methods for cleaning up	ve equipment and emergency procedures Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8. Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13. ainment and cleaning up For waste disposal, see Section 13. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Flush away spillage with plenty of water. 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. Accidental release measure Personal precautions, protecti Personal precautions Environmental precautions Environmental precautions Methods and material for cont Methods for cleaning up Reference to other sections	ve equipment and emergency procedures Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8. Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13. ainment and cleaning up For waste disposal, see Section 13. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Flush away spillage with plenty of water. 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. Accidental release measure Personal precautions, protecti Personal precautions Environmental precautions Environmental precautions Methods and material for cont Methods for cleaning up Reference to other sections 7. Handling and storage	ve equipment and emergency procedures Avoid contact with skin and eyes. Provide adequate ventilation. For personal protection, see Section 8. Do not discharge into drains or watercourses or onto the ground. Collect and dispose of spillage as indicated in Section 13. ainment and cleaning up For waste disposal, see Section 13. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Flush away spillage with plenty of water. 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.

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.
Specific end uses(s)	
Specific end use(s)	The identified uses for this product are detailed in Section 1.
8. Exposure Controls/personal	protection

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	Clear liquid.	
Color	Colorless.	
Odor	Ammonia.	
рН	pH (diluted solution): 8.6-8.8 (1+4)	
Initial boiling point and range	>100°C @ 760 mm Hg	
Relative density	1.29 @ 20°C	
Solubility(ies)	100% Soluble in water.	
Other information	Not available.	
10. Stability and reactivity		
Reactivity	Generates toxic gas in contact with acid.	
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	There are no known conditions that are likely to result in a hazardous situation.	

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: Ammonia. Selenium Oxides of the following substances: Nitrogen. Sulfur. Sodium. Selenium

11. Toxicological information

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)	454.99
Acute toxicity - inhalation	
ATE inhalation (gases ppm)	45,498.86
ATE inhalation (vapours mg/l)	195.0
ATE inhalation (dusts/mists mg/l)	32.5
Inhalation	May cause respiratory system irritation.
Ingestion	Harmful if swallowed.
Skin Contact	Harmful in contact with skin. May cause skin irritation/eczema. May cause sensitisation by skin contact.
Eye contact	Ammonia. Irritating to eyes. May cause severe eye irritation.

SODIUM SELENITE

Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	7.0
Species	Rat
ATE oral (mg/kg)	7.0
Acute toxicity - inhalation	
ATE inhalation (gases ppm)	700.0
ATE inhalation (vapours mg/l)	3.0
ATE inhalation (dusts/mists mg/l)	0.5

12. Ecological Information

Toxicity

The product contains a substance which is toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

Sodium Sulfite

Acut	te toxicity - fish	LC₅₀, 96 hours: 220 - 460 mg/l, Fish	
	te toxicity - aquatic rtebrates	EC₅₀, 48 hours: 69 mg/l, Daphnia magna	
		SODIUM SELENITE	
Acut	te toxicity - fish	LC₅₀, 96 hours: <10 mg/l, Fish	
	te toxicity - aquatic rtebrates	LC₅₀, 48 hours: 7.9 mg/l, Daphnia magna	
Persistence and o	degradability		
Persistence and o	degradability There	are no data on the degradability of this product.	
Bioaccumulative	potential		
Bio-Accumulative	Potential No da	ata available on bioaccumulation.	
Mobility in soil			
Mobility	The p	roduct is soluble in water.	
Other adverse eff	fects		
Other adverse eff	fects Not av	vailable.	
13. Disposal cons	siderations		
Waste treatment	methods		
Disposal methods	permi have waste	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 info	ormation		
General	-	roduct is not covered by international regulations on the transport of dangerous goods G, IATA, DOT).	
UN Number			
Not applicable.			
UN proper shippi	ng name		
Not applicable.			
Transport hazard	class(es)		
No transport warr	ning sign required.		
Transport labels No transport warr	ning sign required.		
DOT transport lat	bels ning sign required.		
•			

Environmental hazards

Environmentally Hazardous Substance No.

Special precautions for user

Not applicable.

DOT TIH Zone Not applicable.

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

15. Regulatory information

US State Regulations

State Regulations Comments No information available.

Inventories

US - TSCA

Water

Ammonium Thiosulphate

Sodium Sulfite

SODIUM SELENITE

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.
Issued by	SHE.Team@harmantechnology.com
	5/30/2017
Revision date	2
Revision	14/05/2015
Supersedes date	H300 Fatal if swallowed.
Hazard statements in full	H302 Harmful if swallowed. H317 May cause an allergic skin reaction. H331 Toxic if inhaled. H411 Toxic to aquatic life with long lasting effects.