

Safety Data Sheet

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1. Identification of the substance/preparation and of the company/undertaking

Product name: KODAK Rapid Selenium Toner

Product code: 1464486

Supplier: Kodak Limited Business Centre, Hemel One, Boundary Way, HP2 7YU, Hemel Hempstead

For Health, Safety & Environmental information, write to KODAK LIMITED, Product Safety Advisory Service, Headstone Drive, Harrow, Middlesex, HA1 4TY or telephone (020) 8424 5476.

IN EMERGENCY, telephone: (020) 8427 4380.

For other product information, telephone: 01442 261122.

Synonyms: 2667

Product Use: Toner

2. Hazards identification

Product: Toxic. Toxic if swallowed. May cause sensitization by skin contact.

3. Composition/information on ingredients

Weight %	Component	CAS-No.	EINECS-No./ ELINCS No.	Classification
55 - 60	Water	7732-18-5	231-791-2	**
25 - 30	Ammonium thiosulphate	7783-18-8	231-982-0	**
10 - 15	Sodium sulphite	7757-83-7	231-821-4	**
1 - 5	sodium selenite	10102-18-8	233-267-9	T+, N; R23, R28, R31, R43, R51/53*

* Symbol and R Phrase according to EC Annex I

** Substance not listed in EC Annex I

4. First aid measures

Inhalation: If symptomatic, move to fresh air. Get medical attention if symptoms occur.

Eyes: In case of contact with eyes, flush immediately with plenty of water and seek medical attention.

Skin: Immediately flush with plenty of water for at least 15 minutes and wash using soap. Get medical attention if symptoms occur.

Ingestion: Do NOT induce vomiting. Give victim a glass of water. Get medical attention immediately. Never give anything by mouth to an unconscious person.

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5. Fire-fighting measures

Extinguishing Media: The product is not flammable. Use appropriate agent for adjacent fire.

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing.

Hazardous Combustion Products: Fire or excessive heat may produce hazardous decomposition products., (see also Stability and Reactivity section).

Unusual Fire and Explosion Hazards: Dried product residue can act as a reducing agent.

6. Accidental release measures

Personal precautions: See Section 8 for recommendations on the use of personal protective equipment.

Environmental precautions: Prevent spillage from entering drains. Absorb spill with vermiculite or other inert absorbant material such as sand or earth, then place in a suitable container for proper disposal. Clean surface thoroughly with water to remove residual contamination.

Waste disposal: Contaminated absorbent should be disposed of in accordance with local regulations.

7. Handling and storage

Personal precautions: Avoid prolonged or repeated breathing of mist or vapour. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

Prevention of Fire and Explosion: Keep from contact with oxidizing materials, highly oxygenated or halogenated solvents, organic compounds containing reducible functional groups. Remove and wash contaminated clothing promptly.

Storage: Cool conditions (5 - 30°C). Store in original container. Keep container closed. Keep away from incompatible substances (see Incompatibility section.)

Ventilation: Match ventilation rates to conditions of use so as not to exceed any applicable exposure limits (see Section 8). Good general ventilation of 10 or more room volumes per hour in the work area is recommended.

8. Exposure controls / personal protection

Occupational exposure controls

Chemical Name	Regulatory List	Value Type	Value
sodium selenite	UK EH40 WELs Expressed as Se	time weighted average	0.1 mg/m ³
Sulphur dioxide		Reference:	
	<i>Remarks: The OES for this substance has been withdrawn by the Health and Safety Commission from April 2003. You should aim to control exposures of employees to sulphur dioxide to as low as is reasonably practicable, and if possible to below 1ppm for both short-term (15-minute reference period) and long-term (8-hour TWA) exposure</i>		
sodium selenite	UK EH40 WELs Expressed as Se	time weighted average	0.1 mg/m ³
Sulphur dioxide		Reference:	
	<i>Remarks: The OES for this substance has been withdrawn by the</i>		

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Health and Safety Commission from April 2003. You should aim to control exposures of employees to sulphur dioxide to as low as is reasonably practicable, and if possible to below 1ppm for both short-term (15-minute reference period) and long-term (8-hour TWA) exposure

sodium selenite	UK EH40 WELs	time weighted average	0.1 mg/m ³
Sulphur dioxide	Expressed as Se	Reference:	
		<i>Remarks: The OES for this substance has been withdrawn by the Health and Safety Commission from April 2003. You should aim to control exposures of employees to sulphur dioxide to as low as is reasonably practicable, and if possible to below 1ppm for both short-term (15-minute reference period) and long-term (8-hour TWA) exposure</i>	
sodium selenite	ELV (IE)	time weighted average	0.1 mg/m ³
	Expressed as Se		
Sulphur dioxide	ELV (IE)	time weighted average	5 mg/m ³
	ELV (IE)	Short term exposure limit	13 mg/m ³
sodium selenite	ELV (IE)	time weighted average	0.1 mg/m ³
	Expressed as Se		
Sulphur dioxide	ELV (IE)	time weighted average	5 mg/m ³
	ELV (IE)	Short term exposure limit	13 mg/m ³
sodium selenite	ELV (IE)	time weighted average	0.1 mg/m ³
	Expressed as Se		
Sulphur dioxide	ELV (IE)	time weighted average	5 mg/m ³
	ELV (IE)	Short term exposure limit	13 mg/m ³

Ventilation: Avoid exposure to mists and vapours by mixing solutions in closed vessels and/or under local exhaust ventilation. Good general ventilation of 10 or more room volumes per hour in the work area is recommended.

Respiratory protection: In case of insufficient ventilation, wear personal respiratory protection designed to protect against both aerosols and acid gas.

Eye protection: Wear safety glasses with side shields or protective goggles whenever mixing or handling solutions.

Skin and body protection: Wear impervious gloves and protective clothing appropriate for the risk of exposure.

Recommended Decontamination Facilities: Safety shower, eye wash, washing facilities as appropriate to condition of use.

9. Physical and chemical properties

Physical form: liquid

Colour: colourless

Odour: characteristic, mild

Specific gravity: 1.32

Vapour pressure: 24 mbar (18.0 mm Hg)

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Vapour density: 0.6

Volatile fraction by weight: 55 - 60 %

Boiling point/boilingrange: > 100.0 °C (> 212.0 °F)

Water solubility: complete

pH: 9

Flash point: does not flash

10. Stability and reactivity

Stability: Stable under normal conditions.

Incompatibility: Acids, Strong bases, sodium hypochlorite (bleach), Halogenated compounds, Oxidizing agents. Contact with strong acids may liberate sulphur dioxide. Contact with strong bases may liberate ammonia. Contact with sodium hypochlorite (bleach) may liberate hazardous materials.

Hazardous decomposition products: sulphur oxides, Ammonia, chloramine. Exposure to temperatures in excess of 180°C may liberate hazardous decomposition products including oxides of carbon, nitrogen and sulphur.

Hazardous Polymerization: Hazardous polymerization does not occur.

11. Toxicological information

Effects of Exposure

Inhalation: Expected to be a low hazard for recommended handling. In contact with strong acids or if heated, sulphites may liberate sulphur dioxide gas. Sulphur dioxide gas is irritating to the respiratory tract. Some asthmatics or hypersensitive individuals may experience difficult breathing.

Eyes: No specific hazard known. May cause transient irritation.

Skin: May cause sensitization by skin contact.

Ingestion: Toxic if swallowed. Some asthmatics or sulfite-sensitive individuals may experience wheezing, chest tightness, stomach upset, hives, faintness, weakness and diarrhea.

Acute Toxicity Data:

- Oral LD50: 500 - 5,000 mg/kg
- Dermal LD50: > 10 mL/kg
- Skin irritation: slight
- Eye irritation: slight

12. Ecological information

The following properties are ESTIMATED from the components of the preparations.

Potential Toxicity:

Toxicity to fish (LC50): > 100 mg/l

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Toxicity to daphnia (EC50): > 100 mg/l

Toxicity to algae (IC50): > 100 mg/l

Toxicity to other organisms (EC50): > 100 mg/l

Chemical Oxygen Demand (COD): 178 g/l

Biochemical Oxygen Demand (BOD): 150 g/l

13. Disposal considerations

This information is provided to assist users in the correct disposal of working solutions prepared and used to Kodak specifications.

Working solution: Waste material is currently classified as hazardous under Council Directive 91/689/EEC. The European Waste Catalogue Code is 09 01 99 Wastes not otherwise specified. Dispose according to the local regulations or guidelines that apply to the category of waste. Ensure the use of properly authorized waste management companies.

Product containers: If thoroughly cleaned, preferably by rinsing at least three times with small quantities of water, waste product packaging may be consigned for recovery or disposal as non hazardous waste. Whenever possible, minimize waste by using the rinsing water to make up the working solution. The European Waste Catalogue Code is 15 01 02 plastic packaging.

Waste product packaging contaminated by residues of hazardous contents should be consigned for disposal as hazardous waste. In this case, the European Waste Catalogue Code is 15 01 10 packaging containing residues of or contaminated by dangerous substances.

14. Transport information

Not regulated for all modes of transportation.

For more transportation information, go to: www.kodak.com/go/ship.

15. Regulatory information

Notification status

Regulatory List	Notification status	Other information	Not listed
EINECS	y (positive listing)	-	
TSCA	y (positive listing)	On TSCA Inventory	
AICS	y (positive listing)	-	
DSL	y (positive listing)	All components of this product are on the Canadian DSL list.	
ENCS (JP)	n (Negative listing)	-	Ammonium thiosulphate
KECI (KR)	y (positive listing)	-	
PICCS (PH)	y (positive listing)	-	
INV (CN)	y (positive listing)	-	

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A N (Negative listing) indicates one or more component is either not on the public Inventory or is subject to exemption requirements. If additional information is needed contact Kodak.

Labelling:

The data below reflects current legislative requirements whereas the product in your possession may carry a different version of the label depending on the date of manufacture.

Contains: sodium selenite < 2 %

pH: 9-12



Symbol/Indication of Danger: T: Toxic

Risk Phrases:
R25: Toxic if swallowed.
R43: May cause sensitization by skin contact.

Safety Phrases:
S36/37: Wear suitable protective clothing and gloves.
S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

16. Other information

The following is an explanation of the meaning of the Symbol letters and Risk Phrases for the pure substance(s) referred to in Section 2 of this Safety Data Sheet.

T+: Very toxic
N: Dangerous for the environment

R23: Toxic by inhalation.
R28: Very toxic if swallowed.
R31: Contact with acids liberates toxic gas.
R43: May cause sensitization by skin contact.
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment. The information relating to the working solution is for guidance purposes only, and is based on correct mixing and use of the product according to instructions.
