

SAFETY DATA SHEET

1. Identification

Product identifier	Dektol Developer
Other means of identification	
Product code	5160270
SDS No.	PCD 224
Recommended use of the chemical and restrictions on use	
Recommended use	Photographic processing chemical. (developer/activator).
Restrictions on use	For industrial use only.
Details of manufacturer or importer	
Supplier	Kodak Alaris Australia Pty Limited
Address	Ground Floor, 2 Domville Avenue Hawthorn, Victoria 3122 Australia
e-mail	EHS-Questions@Kodakalaris.com
Emergency telephone number	(02) 90372994

2. Hazard(s) identification

Classification of the hazardous chemical

Physical hazards	Not classified.	
Health hazards	Acute toxicity, oral	Category 4
	Acute toxicity, dermal	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, skin	Category 1
	Germ cell mutagenicity	Category 2
	Carcinogenicity	Category 2
	Specific target organ toxicity following single exposure	Category 2 (kidney)
	Specific target organ toxicity following repeated exposure	Category 2 (blood, kidney)
Environmental hazards	Not classified.	

Label elements, including precautionary statements

Hazard symbol(s)



Health hazard

Exclamation mark

Signal word

Warning

Hazard Statement(s)

Harmful if swallowed. Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Suspected of causing genetic defects. Suspected of causing cancer. May cause damage to organs (kidney). May cause damage to organs (blood, kidney) through prolonged or repeated exposure.

Precautionary Statement(s)

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wear eye protection/face protection. Wear protective gloves/protective clothing.

Response

IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or if you feel unwell: Call a POISON CENTRE or doctor/physician. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Collect spillage.

Storage

Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards which do not result in classification

Not a PBT or vPvB substance or mixture.

Supplemental information

None.

3. Composition/information on ingredients

Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Sodium carbonate, monohydrate	5968-11-6	50 - 55
Sodium sulphite	7757-83-7	30 - 35
Hydroquinone	123-31-9	5 - 10
Bis(4-hydroxy-N-methylanilinium) sulphate	55-55-0	1 - 5

4. First-aid measures

Description of necessary first aid measures

Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Get medical advice/attention if you feel unwell. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.

Personal protection for first-aid responders

IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

Symptoms caused by exposure

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Oedema. Prolonged exposure may cause chronic effects.

Medical attention and special treatment

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for fire fighters

Wear self-contained breathing apparatus and protective clothing. Fire or excessive heat may produce hazardous decomposition products.

Fire fighting equipment/instructions	Use water spray to cool unopened containers.
Hazchem Code	None.
General fire hazards	No unusual fire or explosion hazards noted.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

Environmental precautions Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Methods and materials for containment and cleaning up Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Precautions for safe handling Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not taste or swallow. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls and personal protection

Control parameters Follow standard monitoring procedures.

Occupational exposure limits

Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)

Components	Type	Value
Hydroquinone (CAS 123-31-9)	TWA	2 mg/m3

Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

Components	Type	Value
Hydroquinone (CAS 123-31-9)	TWA	2 mg/m3

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, for example personal protective equipment (PPE)

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	Observe any medical surveillance requirements. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Powder.
Colour	White
Odour	Odourless.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	> 100 °C (> 212 °F)
Flash point	Not applicable
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Vapour pressure	18 mm Hg
Vapour density	0.6
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Appreciable
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other physical and chemical parameters	
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.
Conditions to avoid	Contact with incompatible materials.

Incompatible materials Acids. Contact with strong acids may liberate sulphur dioxide.
Hazardous decomposition products Carbon oxides. Sulphur oxides.

11. Toxicological information

Information on possible routes 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 difficulty breathing.

Skin contact Harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.

Eye contact Causes serious eye irritation.

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

Symptoms related to exposure Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Oedema.

Acute toxicity Harmful in contact with skin. Harmful if swallowed.

Components	Species	Test results
Bis(4-hydroxy-N-methylanilinium) sulphate (CAS 55-55-0)		
Acute		
Dermal		
LD50	Guinea pig	> 1000 mg/kg
Hydroquinone (CAS 123-31-9)		
Acute		
Dermal		
LD50	Guinea pig	> 1000 mg/kg
	Rat	> 900 mg/kg
Oral		
LD50	Rat	320 mg/kg
Sodium carbonate, monohydrate (CAS 5968-11-6)		
Acute		
Inhalation		
LC50	Rat	2.3 mg/l, 2 Hours
Oral		
LD50	Rat	4090 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/irritation	Causes serious eye irritation.	
Respiratory or skin sensitisation		
ACGIH sensitisation		
Hydroquinone (CAS 123-31-9)	Dermal sensitization	
Respiratory sensitisation	Not a respiratory sensitizer.	
Skin sensitisation	May cause an allergic skin reaction.	
Germ cell mutagenicity	Suspected of causing genetic defects.	
Carcinogenicity	Suspected of causing cancer.	
ACGIH Carcinogens		
Hydroquinone (CAS 123-31-9)	A3 Confirmed animal carcinogen with unknown relevance to humans.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Hydroquinone (CAS 123-31-9)	3 Not classifiable as to carcinogenicity to humans.	
Sodium sulphite (CAS 7757-83-7)	3 Not classifiable as to carcinogenicity to humans.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Specific target organ toxicity - single exposure	May cause damage to organs (kidney).	

Specific target organ toxicity - repeated exposure	May cause damage to organs (blood, kidney) through prolonged or repeated exposure.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Components	Species	Test results
Hydroquinone (CAS 123-31-9)		
Aquatic		
Crustacea	EC50 Water flea (Daphnia magna)	0.12 - 0.15 mg/l, 48 hours
Fish	LC50 Rainbow trout, donaldson trout (Oncorhynchus mykiss)	0.044 mg/l, 96 hours

Persistence and degradability Not readily biodegradable.

Bioaccumulative potential
Partition coefficient n-octanol / water (log Kow)
 Hydroquinone 0.59

Mobility in soil No data available for this product.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal methods Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

ADG

UN number	3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. (1,4-dihydroxybenzene, Bis(4-hydroxy-N-methylanilinium) sulphate)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	Yes
Hazchem Code	2Z
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number	3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. (Hydroquinone, Bis(4-hydroxy-N-methylanilinium) sulphate)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	Yes
ERG Code	9L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft Allowed with restrictions.

Cargo aircraft only Allowed with restrictions.

IMDG

UN number 3077

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Hydroquinone, Bis(4-hydroxy-N-methylanilinium) sulphate)

Transport hazard class(es)

Class 9

Subsidiary risk -

Packing group III

Environmental hazards

Marine pollutant MARINE POLLUTANT

EmS F-A, S-F

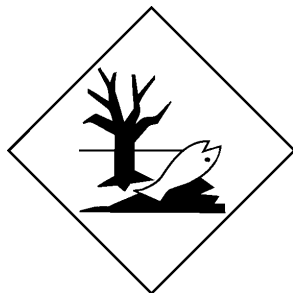
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

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

ADG; IATA; IMDG



Marine pollutant



General information

IMDG Regulated Marine Pollutant.

15. Regulatory information

Safety, health and environmental regulations

National regulations

This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals (23/12/2011).

Australia Medicines & Poisons Appendix E

ALKALINE SALTS (CAS 5968-11-6)

HYDROQUINONE, WHEN INCLUDED IN SCHEDULE 2 (CAS 123-31-9)

Australia Medicines & Poisons Appendix F

ALKALINE SALTS (CAS 5968-11-6)

HYDROQUINONE (ENTRY 2) (CAS 123-31-9)

Australia Medicines & Poisons Schedule 10

ALKALINE SALTS, BEING THE CARBONATE, SILICATE OR PHOSPHATE SALTS OF SODIUM OR POTASSIUM ALONE OR IN ANY COMBINATION (CAS 5968-11-6)

Australia Medicines & Poisons Schedule 2

HYDROQUINONE (EXCLUDING MONOBENZONE AND ALKYL ETHERS OF HYDROQUINONE INCLUDED IN SCHEDULE 4) (CAS 123-31-9)

Australia Medicines & Poisons Schedule 4

HYDROQUINONE (OTHER THAN ITS ALKYL ETHERS SEPARATELY SPECIFIED IN THIS SCHEDULE) (CAS 123-31-9)

Australia Medicines & Poisons Schedule 5

ALKALINE SALTS, BEING THE CARBONATE, SILICATE OR PHOSPHATE SALTS OF SODIUM OR POTASSIUM ALONE OR IN ANY COMBINATION, EXCEPT WHEN SEPARATELY SPECIFIED IN THESE SCHEDULES (CAS 5968-11-6)

Australia Medicines & Poisons Schedule 6

ALKALINE SALTS, BEING THE CARBONATE, SILICATE OR PHOSPHATE SALTS OF SODIUM OR POTASSIUM ALONE OR IN ANY COMBINATION, EXCEPT WHEN SEPARATELY SPECIFIED IN THESE SCHEDULES (CAS 5968-11-6)

Hydroquinone (CAS 123-31-9)

High Volume Industrial Chemicals (HVIC)

Sodium carbonate, monohydrate (CAS 5968-11-6) 10000 - 99999 TONNES See the regulation for additional information.

Sodium sulphite (CAS 7757-83-7) 10000 - 99999 TONNES See the regulation for additional information.

Importation of Ozone Depleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10)

Not listed.

National Pollutant Inventory (NPI) substance reporting list

Not listed.

Prohibited Carcinogenic Substances

Not regulated.

Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)

Not listed.

Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)

Not listed.

Restricted Carcinogenic Substances

Not regulated.

International regulations**Stockholm Convention**

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Issue date 09-January-2017

Revision date 05-July-2018

Disclaimer Kodak Alaris cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information Hazard(s) identification: Other hazards which do not result in classification
Physical & Chemical Properties: Multiple Properties