SAFETY DATA SHEET

Kodak alaris

1. Identification

Product identifier **Kodak Flexicolor Developer Replenisher**

Other means of identification

Product code 3667805C

SDS No. PCD F1661

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	Corrosive to metals	Category 1
Health hazards	Acute toxicity, oral	Category 3
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, skin	Category 1
	Specific target organ toxicity following single exposure	Category 2 (kidney)
	Specific target organ toxicity following repeated exposure	Category 2 (kidney)
Environmental hazards	Not classified.	

Label elements, including precautionary statements

Hazard symbol(s)

Skull and crossbones | Corrosion | Health hazard

Signal word Danger

Hazard Statement(s) May be corrosive to metals. Toxic if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause damage to organs (kidney). May cause damage to organs (kidney) through prolonged or repeated exposure.

Precautionary Statement(s)

Prevention Keep only in original container. Do not breathe mist or vapour. Wash thoroughly after handling. Wear eye protection/face protection. Wear protective gloves.

Response IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage Not available.

Disposal Not available.

Other hazards which do not result in classification	Can decompose at elevated temperatures. May liberate sulfur dioxide.
Supplemental information	None.

3. Composition/information on ingredients

Mixture

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
4-(N-ethyl-N-2-hydroxyethyl)-2-methylphenylenediamine sulfate	25646-77-9	10 - < 20
Sodium hydrogensulfite	7631-90-5	1 - < 3

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. 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	Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Personal protection for first-aid responders	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	Water spray. Alcohol resistant foam. Dry chemicals. Carbon dioxide (CO2). Use water spray to cool unopened containers.
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. Carbon oxides. Nitrogen oxides (NOx). Sulphur oxides.
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	Move containers from fire area if you can do so without risk.
Hazchem Code	None.
General fire hazards	Can decompose at elevated temperatures.
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 breathe mist or vapour. 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 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 spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. 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 Do not breathe mist or vapour. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store locked up. Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Keep only in the original 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
Sodium hydrogensulfite (CAS 7631-90-5)	TWA	5 mg/m3

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

Components	Type	Value
Sodium hydrogensulfite (CAS 7631-90-5)	TWA	5 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 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 Liquid.

Form Liquid.

Colour	light yellow
Odour	strong sulphur dioxide
Odour threshold	Not available.
pH	2.2
Melting point/freezing point	Not available.
Initial boiling point and boiling range	> 100 °C (> 212 °F)
Flash point	does not flash
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
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)	Complete
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.
Specific gravity	1.06

10. Stability and reactivity

Reactivity	May be corrosive to metals.
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	Strong oxidising agents. Metals. Contact with strong acids may liberate sulphur dioxide. Contact with base liberates ammonia.
Hazardous decomposition products	Carbon oxides. Nitrogen oxides (NOx). 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	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	Toxic 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	Toxic if swallowed.

Components	Species	Test results
Sodium hydrogensulfite (CAS 7631-90-5)		
Acute		
Dermal		
LD50	Rat	2000 mg/kg
Oral		
LD50	Rat	2 g/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation Causes serious eye irritation.

Respiratory or skin sensitisation

Respiratory sensitisation Not a respiratory sensitizer.

Skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

ACGIH Carcinogens

Sodium hydrogensulfite (CAS 7631-90-5) A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Sodium hydrogensulfite (CAS 7631-90-5) 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 (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 The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability Readily biodegradable.

Bioaccumulative potential No data available.

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	2922
UN proper shipping name	Corrosive liquid, toxic, n.o.s.
Transport hazard class(es)	
Class	8
Subsidiary risk	6.1(PGIII)
Packing group	III
Environmental hazards	Not available.
Hazchem Code	2X
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number	2922
UN proper shipping name	Corrosive liquid, toxic, n.o.s. (4-(N-ethyl-N-2-hydroxyethyl)-2-methylphenylenediamine sulfate)
Transport hazard class(es)	
Class	8
Subsidiary risk	6.1(PGIII)
Packing group	III
Environmental hazards	No.
ERG Code	8P
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.

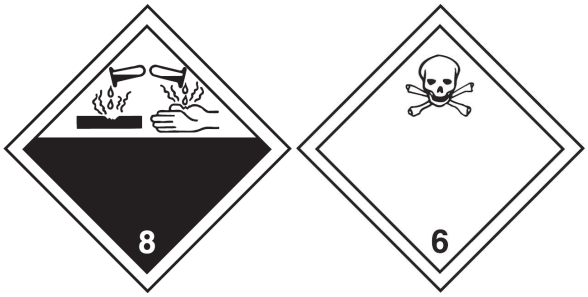
IMDG

UN number	2922
UN proper shipping name	CORROSIVE LIQUID, TOXIC, N.O.S. (4-(N-ethyl-N-2-hydroxyethyl)-2-methylphenylenediamine sulfate)
Transport hazard class(es)	
Class	8
Subsidiary risk	6.1(PGIII)
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B
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 established.

ADG

IATA; IMDG



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

PHENYLENEDIAMINES INCLUDING ALKYLATED, ARYLATED AND NITRO DERIVATIVES, IN HAIR DYES (CAS 25646-77-9)

Australia Medicines & Poisons Appendix F

PHENYLENEDIAMINES INCLUDING BOTH ALKYLATED, ARYLATED AND NITRO DERIVATIVE (CAS 25646-77-9)

Australia Medicines & Poisons Schedule 6

PHENYLENEDIAMINES INCLUDING ALKYLATED, ARYLATED, AND NITRO DERIVATIVES NOT ELSEWHERE SPECIFIED IN THESE SCHEDULES (CAS 25646-77-9)

High Volume Industrial Chemicals (HVIC)

Not listed.

Importation of Ozone Deleting 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.

Resricted 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

Country(s) or region	Inventory name	On inventory (yes/no)*
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)	Yes
Korea	Existing Chemicals List (ECL)	Yes
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 29-September-2017

Revision date 16-March-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 This document has undergone significant changes and should be reviewed in its entirety.