

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision Date 6 February 2019

Version 1.03

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product code: 5285929

Product name: READYMATIC Developer and Replenisher

Synonyms: F1471

Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Photographic chemical. Restricted to professional users.

Uses advised against: No information available

1.3. Details of the supplier of the safety data sheet

Supplier Carestream Health UK Ltd., 1 Park Lane, Hemel Hempstead, Hertfordshire, HP2 4YG

For further information, please contact:

Product Information +44 (0)870 6000245

For environment, health and safety information, email: WW-EHS@carestreamhealth.com

1.4. Emergency telephone number

Emergency Telephone CHEMTREC International 1-703-527-3887/CHEMTREC UK +(44)-870-8200418

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Serious eye damage/eye irritation	Category 2 - (H319)
Skin Sensitisation	Category 1 - (H317)
Germ cell mutagenicity	Category 2 - (H341)
Carcinogenicity	Category 2 - (H351)

2.2. Label elements



Signal word
Warning

Contains Hydroquinone

Hazard Statements

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H341 - Suspected of causing genetic defects

H351 - Suspected of causing cancer

Precautionary Statements - EU (§28, 1272/2008)

P201 - Obtain special instructions before use

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P302 + P352 - IF ON SKIN: Wash with plenty of water and soap

2.3. Other hazards

Toxic to aquatic life.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical Name	EC-No	CAS-No	Weight percent	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number	SVHC candidates
Hydroquinone	Present	123-31-9	<2	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Muta. 2 (H341) Carc. 2 (H351) Aquatic Acute 1 (H400)	01-2119524016-51	
Potassium carbonate	Present	584-08-7	1-<3	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT Single Exp. 3 (H335)	01-2119532646-36	
Sodium carbonate	Present	497-19-8	1-<3	Eye Irrit. 2 (H319)	no data available	
Sodium borate	Present	1330-43-4	<1	Repr. 1B (H360FD)	no data available	Reason for inclusion Toxic for reproduction, Article 57c (215-540-4)

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact

Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor.

Ingestion

Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.

Inhalation	Remove to fresh air.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	Itching. Rashes. Hives. Burning sensation.
----------	--

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	May cause sensitisation in susceptible persons. Treat symptomatically.
-----------------	--

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product is not flammable.
------------------------------	---

Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.
--------------------------------	--

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	Product is or contains a sensitiser. May cause sensitisation by skin contact.
--	---

5.3. Advice for firefighters

Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
--	--

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
Other Information	Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Prevent entry into waterways, sewers, basements or confined areas. Prevent further leakage or spillage if safe to do so. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional Ecological Information.
---------------------------	--

6.3. Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Dyke far ahead of liquid spill for later disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash it before reuse. Remove contaminated clothing and shoes.

General hygiene considerations

Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

Materials to Avoid

Acids. Contact with strong acids liberates sulphur dioxide.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits

Chemical Name	European Union	The United Kingdom	France	Spain	Germany
Hydroquinone 123-31-9	-	STEL 1.5 mg/m ³ TWA 0.5 mg/m ³	TWA 2 mg/m ³ C2 M2	TWA 2 mg/m ³ S+	-
Sodium borate 1330-43-4	-	STEL 3 mg/m ³ TWA 1 mg/m ³	TWA 1 mg/m ³ R1	TWA 2 mg/m ³ STEL 6 mg/m ³	-
Chemical Name	Italy	Portugal	The Netherlands	Finland	Denmark
Hydroquinone 123-31-9	-	TWA 2 mg/m ³ S+ C(A3)	-	TWA 0.5 mg/m ³ STEL 2 mg/m ³	Ceiling 2 mg/m ³
Sodium borate 1330-43-4	-	TWA 2 mg/m ³ STEL 6 mg/m ³ C(A4)	-	-	TWA 1 mg/m ³
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
Hydroquinone 123-31-9	Sensitizer STEL 4 mg/m ³ TWA 2 mg/m ³ B	S+ H* TWA 2 mg/m ³ C2 STEL 2 mg/m ³ M2	TWA 1 mg/m ³ STEL 2 mg/m ³	TWA 0.5 mg/m ³ K** A+ STEL 1.5 mg/m ³	TWA 0.5 mg/m ³ STEL 1.5 mg/m ³ Sensitizer
Sodium borate 1330-43-4	-	STEL 0.8 mg/m ³	-	TWA 1 mg/m ³ STEL 2 mg/m ³	TWA 1 mg/m ³ STEL 3 mg/m ³ Repr1B

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls	Apply technical measures to comply with the occupational exposure limits. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Ensure that eyewash stations and safety showers are close to the workstation location.
Personal protective equipment	These recommendations apply to the product as supplied
Eye/face protection	Wear safety glasses with side shields (or goggles). If splashes are likely to occur, wear safety glasses with side-shields.
Hand protection	Wear suitable gloves.
Skin and body protection	Wear suitable protective clothing.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.
Environmental exposure controls	Do not allow material to contaminate ground water system.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1

Physical state	Liquid
Appearance	No information available
Colour	colourless
Odour	Odourless.
Odour Threshold	No information available

Property	Values	Remarks/ • Method
pH	10.1	
Melting point/range:	no data available	no data available
Boiling point/boiling range	> 100 °C	
Flash Point	no data available	No information available
Evaporation rate	no data available	No information available
Flammability (solid, gas)	no data available	No information available
Flammability Limits in Air		No information available
Upper flammability limit	no data available	
Lower flammability limit	no data available	
Vapour pressure	24 mbar @ 20 °C	
Vapour density	0.6	
Specific Gravity	1.08	No information available
Water Solubility	completely soluble	
Solubility in other solvents	no data available	No information available
Partition coefficient: n-octanol/water	no data available	No information available
Autoignition temperature	no data available	No information available
Decomposition temperature	no data available	No information available
Viscosity, kinematic	no data available	
Viscosity, dynamic	no data available	
Explosive properties	no data available	
Oxidizing properties	no data available	

9.2

Softening point	no data available
Molecular Weight	no data available
Density	no data available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal conditions.

Explosion Data

Sensitivity to Mechanical Impact None

Sensitivity to Static Discharge None

10.3. Possibility of hazardous reactions

None under normal processing

Hazardous polymerisation does not occur

10.4. Conditions to avoid

Heat, flames and sparks. Do not freeze.

10.5

Acids. Contact with strong acids liberates sulphur dioxide.

10.6

Sulphur oxides

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
Skin contact	May cause sensitisation by skin contact. Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). May cause irritation. Prolonged contact may cause redness and irritation.
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Information on toxicological effects

Symptoms Itching. Rashes. Hives. May cause redness and tearing of the eyes.

Numerical measures of toxicity**Acute toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 11,348.00 mg/kg
ATEmix (dermal) 24,132.00 mg/kg

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hydroquinone	375 mg/kg (Rat) Oral LD50 Rat 375 mg/kg (Source: ECHA)	> 4800 mg/kg (Rat)	
Potassium carbonate	> 2000 mg/kg (Rat) Oral LD50 Rat 2000 mg/kg (Source: ECHA)	>2000 mg/kg (Rabbit)	
Sodium carbonate	4090 mg/kg (Rat) Oral LD50 Rat 4090 mg/kg (Source: HSDB)		
Sodium borate	2660 mg/kg (Rat) Oral LD50 Rat 2660 mg/kg (Source: JAPAN_GHS)	2000 mg/kg (Rabbit) Dermal LD50 Rabbit >2000 mg/kg (Source: IUCLID)	2 mg/m ³ (Rat) 4 h Inhalation LC50 Rat >2 mg/m ³ 4 h (Source: HSDB)

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation May cause skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Irritating to eyes.

Respiratory or skin sensitisation May cause sensitisation by skin contact.

Germ cell mutagenicity Classification based on data available for ingredients. Contains a known or suspected mutagen.

Carcinogenicity Classification based on data available for ingredients.

Chemical Name	European Union
Hydroquinone	Carc. 2

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT - single exposure Based on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

Section 12: ECOLOGICAL INFORMATION**12.1 Toxicity****Ecotoxicity**

Unknown aquatic toxicity 0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates

Hydroquinone	0.335: 72 h Pseudokirchneriella subcapitata mg/L EC50 13.5: 120 h Desmodesmus subspicatus mg/L EC50	0.044: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.044: 96 h Pimephales promelas mg/L LC50 flow-through 0.1 - 0.18: 96 h Pimephales promelas mg/L LC50 static 0.17: 96 h Brachydanio rerio mg/L LC50		0.29: 48 h Daphnia magna mg/L EC50
Potassium carbonate	-	-		440 - 880: <24 h Daphnia magna mg/L LC50
Sodium carbonate	242: 120 h Nitzschia mg/L EC50	300: 96 h Lepomis macrochirus mg/L LC50 static 310 - 1220: 96 h Pimephales promelas mg/L LC50 static		265: 48 h Daphnia magna mg/L EC50
Sodium borate	158: 96 h Desmodesmus subspicatus mg/L EC50 2.6 - 21.8: 96 h Pseudokirchneriella subcapitata mg/L EC50 static	340: 96 h Limanda limanda mg/L LC50		1085 - 1402: 48 h Daphnia magna mg/L LC50

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

Bioaccumulation: .

Bioconcentration factor (BCF)

Chemical Name	log Pow
Hydroquinone	0.5

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods**

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

Working Solution

Waste material is currently classified as hazardous under Council Directive 91/689/EEC. The European Waste Catalogue Code is 09 01 01 Water based developer and activator. Dispose according to the local regulations or guidelines that apply to the category of waste. Ensure the use of properly authorised waste management companies.

Waste from residues / unused

Dispose of in accordance with local regulations.

products**Empty 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.

Contaminated 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.

Section 14: TRANSPORT INFORMATION

The information given below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may have a different version of the label depending on the date of manufacture. Depending on inner packaging quantities and packaging instructions, it may be subject to specific regulatory exceptions. Please consult the product packaging for further details.

IMDG/IMO

14.1. UN/ID no	Not regulated
14.2. Proper Shipping Name	Not regulated
14.3. Hazard class	Not regulated
14.4. Packing Group	Not regulated
14.5. Marine pollutant	None
14.6. Special Provisions	None

ADR/RID

14.1. UN/ID no	Not regulated
14.2. Proper Shipping Name	Not regulated
14.3. Hazard class	Not regulated
14.4. Packing Group	Not regulated
14.5. Environmental hazard	Not applicable
14.6. Special Provisions	None
Classification Code	None
Tunnel restriction code	(E)

ICAO/IATA

14.1. UN/ID no	Not regulated
14.2. Proper Shipping Name	Not regulated
14.3. Hazard class	None
14.4. Packing Group	Not regulated
14.5. Environmental hazard	Not applicable
14.6. Special Provisions	None
ERG Code	None

For transportation information, go to: <http://ship.carestream.com>

Section 15: REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

AICS	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
NZIoC	Complies
PICCS	Complies
TSCA	Complies

Legend:

AICS - Australian Inventory of Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture.

Section 16: OTHER INFORMATION**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H302 - Harmful if swallowed

H318 - Causes serious eye damage

H317 - May cause an allergic skin reaction

H341 - Suspected of causing genetic defects

H351 - Suspected of causing cancer

H400 - Very toxic to aquatic life

H360FD - May damage fertility. May damage the unborn child

H319 - Causes serious eye irritation

H315 - Causes skin irritation

H335 - May cause respiratory irritation

SVHC: Substances of Very High Concern for Authorization:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA: Time weighted average

STEL:

Short term exposure limit

Ceiling: Maximum limit value:

*

Skin designation

Issuing Date

5 February 2014

Revision Date

6 February 2019

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text