

Rollei GmbH

**MATERIAL SAFETY DATA SHEET**  
acc. to 91/155 EC

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Page 1/1

## Rollei RHS High Speed Film Developer BLACK & WHITE

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### 1. IDENTIFICATION OF SUBSTANCE

**Product name/** ROLLEI RHS HIGH SPEED  
**Trade name**  
**Use for** Photographic developer  
**Manufacturer/Supplier** Hans O. Mahn GmbH & Co, Brookstieg 4  
D 22145 Hamburg-Stapelfeld  
**Telephone number** + 49 40 237008-88  
**Fax** + 49 40 237008-488  
**Email** photo@mahn.net

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### 2. COMPOSITION/DATA ON COMPONENTS

Mixture of substances listed below with nonhazardous additions.

**Description** Mixture with inorganic and organic substances

**Dangerous components:**

Name	%	CAS-No.
hydroquinone	< 1	123-31-9
1-phenyl-3-pyrazolidone	< 1	92-43-3
sodium sulfite	< 20	7757-83-7
sodium carbonate	< 1-5	584-08-7
potassium bromide	< 2	7758-02-3

**Other Information:** Main component: Water

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### 3. HAZARDS IDENTIFICATION

**Hazard designation:** Harmful: Possible risk of irreversible effects if swallowed.  
Irritant: Irritating to eyes and skin.  
May cause sensitization by skin contact.

**Information pertaining to particular dangers for man and environment:** The mixture contain hydroquinone. This substance is classified as: carcinogen, category 3 and mutagen, category 3.  
The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

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### 4. FIRST AID MEASURES

**General information** Instantly remove any clothing soiled by the product.

**First aid**

<b>general</b>	Fresh air, eventual medical attention
<b>inhalation</b>	No special measure required.
<b>skin</b>	Wash with water and soap. Remove and wash contaminated clothing before reuse.
<b>eyes</b>	Flush with plenty of water at last 15 minutes. Get medical attention promptly.
<b>swallowing</b>	Rinse out mouth and then drink plenty of water. Do not induce vomiting; instantly call for medical help.

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### 5. FIRE AND EXPLOSION HAZARD

**Extinguishing media** Use agent appropriate for surrounding.

**Unsuitable extinguishing media** None

**Special fire fighting procedures** Protection against inhalation of the fire gases.

**Unusual fire and explosion hazard** Fire or excessive heat may cause production of hazardous decomposition products ( carbon monoxide, carbon dioxide, sulphur dioxide).

## Rollei RHS High Speed Film Developer BLACK & WHITE

**Protective equipment** No special measure required.

**Other information:** Product is not combustible.

### 6. ACCIDENTIAL RELEASE MEASURES

**Person-related safety precautions** Wear suitable individual clothing.

**Measures for environmental protection** Do not allow to enter drainage system, surface or ground water.

**Measure for cleaning/collecting** Collect in a container and disposed of waste.

### 7. HANDLING AND STORAGE

**Handling** Avoid the formation of dust. Avoid contact.

**Information about protection against explosions and fires** No special measures required.

**Storage** No special requirements.

Keep container tightly sealed. Temperature of storage: 5 to 25 °C

### 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

#### Additional information about design of technical systems

No further data; see item 7.

#### Components with values that require monitoring at the workplace

None

**Additional information:** The list that were valid during the compilation were used as basis.  
**Personal protective rules** The usual precautionary measures should be adhered to general

**and hygienic measure** for handling chemicals. Keep away from foodstuffs, beverages and food. Take off immediately all contaminated clothing. Wash hands during breaks and at the end of the work.

**Breathing equipment** Not required.

**Protection of hands** Protective gloves.

**Eye protection** Safety glasses

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form** Liquid

**Colour** Colourless to yellowish

**Odour** Not characteristic

**pH-value** 9,6-10,0 (at 20 °C)

**Boiling point/boiling range** ≥ 100 °C

**Melting point/melting range** ≤ 0 °C

**Flash point** Not applicable

**Self-inflamability** Product is not self igniting.

**Danger of explosion** Product is not explosive.

**Vapour pressure** Correspond to vapour pressure of water.

**Density** 1,16-1,18 g/cm<sup>3</sup> (20 °C)

**Solubility in / Miscibility with Water** Fully miscible

**Solvent content** None

**Organic solvents**

**Water** 77 %

**Solids content** 23 %

### 10. STABILITY AND REACTIVITY

**Thermal decomposition/** No decomposition if used according to specifications.

## Rollei RHS High Speed Film Developer BLACK & WHITE

### conditions to be avoided

<b>Dangerous reactions</b>	React with strong acids. React with acids releasing Carbon dioxide
<b>Dangerous products of decomposition</b>	None

### 11. TOXICOLOGICAL INFORMATION

<b>Acute toxicity</b>	Hydroquinone	Oral LD 50	320 mg/kg (rat)
	1-phenyl-3-pyrazolidone	Oral LD 50	200 mg/kg
	sodium sulfite	Oral LD 50	4090 mg/kg
	potassium bromide	Oral LD 50	3070 mg/kg
<b>Primary irritant effect</b>	<b>on the skin</b>	Irritant	
	<b>on the eyes</b>	Corrosive	
	<b>Sensitization</b>	Sensitization possible by skin contact.	

### 12. ECOLOGICAL INFORMATION

<b>General notes</b>	Water hazard class 1 (German Regulation) Do not allow product to reach ground water, water bodies or sewage system.
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### 13. DISPOSAL CONSIDERATIONS

<b>Product</b>	Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Must be specially treated under adherence to official regulations.
<b>EWC Code:</b>	09 01 01
<b>Uncleaned packaging</b>	Recommendation: Non contaminated packaging can be used for recycling. Empty contaminated thoroughly: They can be recycled after thorough and proper cleaning.
<b>Recommended cleaning agent:</b>	Water, if necessary with cleaning agent.

### 14. TRANSPORT INFORMATION

<b>Transport/Additional information</b>	Not dangerous according to the above specifications.
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### 15. REGULATORY INFORMATION

#### Designation according to EC guidelines

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV).

#### Code letter and hazard designation of product:

Xn



Harmful

<b>Risk phrases</b>	40, 43, 36/38
<b>Safety phrases</b>	2, 26, 36/37/39
<b>Water hazard class</b>	1 (Self-assessment): slightly hazardous for water

### 16. OTHER INFORMATION

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.