

Rollei R³ High Speed Film Developer BLACK & WHITE

1. IDENTIFICATION OF SUBSTANCE

Product name/ ROLLEI R³ HIGH SPEED
Trade name
Use for Photographic developer
Manufacturer/Supplier Hans O. Mahn & Co, Brookstieg 4
D 22145 Hamburg-Stapelfeld
Telephone number + 49 40 237008-88
Fax + 49 40 237008-488
Email photo@mahn.net

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

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.

4. FIRST AID MEASURES

General information Instantly remove any clothing soiled by the product.

First aid

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

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).

Protective equipment No special measure required.

Other information: Product is not combustible.

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6. ACCIDENTAL 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 and hygienic measure The usual precautionary measures should be adhered to general rules 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/cm³ (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/ conditions to be avoided No decomposition if used according to specifications.

Dangerous reactions React with strong acids. React with acids releasing Carbon dioxide

Dangerous products of decomposition None

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11. TOXICOLOGICAL INFORMATION

Acute toxicity	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
Primary irritant effect			
on the skin	Irritant		
on the eyes	Corrosive		
Sensitization	Sensitization possible by skin contact.		

12. ECOLOGICAL INFORMATION

General notes	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

Product	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.
EWC Code:	09 01 01
Uncleaned packaging	Recommendation: Non contaminated packaging can be used for recycling. Empty contaminated thoroughly: They can be recycled after thorough and proper cleaning.
Recommended cleaning agent:	Water, if necessary with cleaning agent.

14. TRANSPORT INFORMATION

Transport/Additional information	Not dangerous according to the above specifications.
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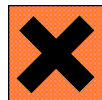
15. REGULATORY INFORMATION

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

Risk phrases

40, 43, 36/38

Safety phrases

2, 26, 36/37/39

Water hazard class

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.