

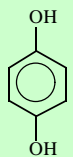
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## 1 Commercial product name and supplier

1.1	Commercial product name / designation	<b>QR-D1 DEVELOPER REPLENISHER 30 I</b>
1.2	Application / use	Photographic B&W Developer
1.3	Producer	Fuji Hunt Photographic Chemicals n.v., Europark Noord 21-22, B-9100 Sint Niklaas, Belgium (0032 376 00200)
1.4	Supplier	FUJI PHOTO FILM (UK) LTD, Fuji Film House; 125, Finchley Road, London NW3 6JH; Tel.: (0171) 5865900;
1.5	TOX emergency number	Technical Centre, Bedford: (01234) 340040;
1.6	BAG T No. (CH)	681063
1.7	Product No.	951129

## 2 Composition

2.1	Chemical characterisation	Aqueous solution containing organic and inorganic salts. Active ingredient: CAS No.: 123-31-9 Hydroquinone	
2.2	Hazardous components	<b>Components contributing to hazard (88/379/EEC):</b> 7 - 15 % potassium carbonate Xn: Harmful. R22: Harmful if swallowed. R36: Irritating to eyes. 5 - 10 % potassium sulfite Xi: Irritant. R37/38: Irritating to respiratory system and skin. 3 - 7 % sodium sulfite Xi: Irritant. R36/37/38: Irritating to eyes, respiratory system and skin. 3 - 7 % hydroquinone Xn: Harmful. R20/22: Harmful by inhalation and if swallowed.	
2.3	Further information	None.	

## 3 Hazards identification

May cause sensitisation by skin contact.

## 4 First aid measures

4.1	Eye contact	Irrigate with flowing water immediately and continuously for 15 minutes. Consult medical personnel.
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4.2	Skin contact	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing.
4.3	Ingestion	Consult a physician or transport to emergency facility immediately.
4.4	Inhalation	Remove to fresh air. Consult a physician.
4.5	Further information	Overexposure may lead to allergic skin reactions with sensitized people. In this case, seek medical advice.
<b>5</b>	<b>Fire-fighting measures</b>	
5.1	Suitable extinguishing media	Water. Water fog, carbon dioxide, foam, dry chemicals.
5.2	Extinguishing media to avoid	None under normal conditions.
5.3	Further information	Keep containers cool by spraying with water.
<b>6</b>	<b>Accidental release measures</b>	
		Wear adequate personal protective equipment, see Section 8 (Exposure Controls/Personal Protection) Spills should be contained by, and covered with suitable absorbent material and removed for disposal. Dispose of according to local and national regulations. Prevent from entering into soil, waterways and groundwater.
<b>7</b>	<b>Handling and storage</b>	
7.1	Handling	Avoid eye and skin contact. Wash thoroughly after handling. Wash hands and exposed skin before eating, drinking or smoking and after work. Use only in well ventilated area.
7.2	Industrial hygiene	Avoid eye and skin contact. Wear suitable protective clothing, gloves and eye/face protection.  Follow normal industrial hygiene standards.  Do not consume or store food in the work area.
7.3	Storage	Keep containers tightly closed. Store in a well ventilated, cool, dry area.
7.4	Fire- and explosion protection	Not combustible.
<b>8</b>	<b>Exposure controls / personal protection</b>	
8.1	Technical equipment	Good general ventilation should be sufficient for most processing operations. Vent work area to ensure airborne concentrations are below the current occupational exposure limits. 10 or more room air changes per hour containing a minimum of 15% fresh air, will meet these requirements.
8.2	Control of treshold limits	None established.
<b>8.3</b>	<b>Personal protective equipment</b>	

8.3.1	Respiratory protection	No respiratory protection needed under normal conditions. Good general ventilation should be sufficient.
8.3.2	Hand protection	Neoprene or butyl rubber should be effective glove materials.
8.3.3	Eye protection	Use chemical safety goggles. Eye wash fountain should be located in immediate work area.
8.3.4	Other	Appropriate protective clothing.

**9 Physical and chemical properties**

9.1	Appearance	liquid
9.2	Color	yellow
9.3	Odour	practically odourless
9.4	Change in physical state	
	Melting point	~ 0 °C
	Boiling point	~ 100 °C
9.5	Density	1.280 g/cm <sup>3</sup> (20 °C)
9.6	Vapour pressure	----- N/Av
9.7	Viscosity	----- N/Av
9.8	Solubility in water	----- g/l (20 °C) completely soluble
9.9	pH-value	10.77 (25 °C) alkaline
9.10	Flash point	----- °C N/Av
9.11	Ignition temperature	----- °C N/Av
9.12	Explosion limits	Lower: ----- vol.% N/Av Upper: ----- vol.% N/Av
	remark(s)	None.
9.13	Further information	None.

**10 Stability and reactivity**

10.1	Thermal decomposition	Is stable under normal storage conditions.
10.2	Hazardous decomposition products	In case of thermal decomposition poisonous and irritant gases/fumes can be released. Hazardous Decomposition Products: CO <sub>2</sub> , SO <sub>2</sub>
10.3	Hazardous reactions	With strong acids. With strong oxidisers.
10.4	Further information	None.

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**11 Toxicological information**

Product Information:

LD50, oral: > 2000 mg/kg Test Animal: Rats  
 LD50, dermal: N/Av Test Animal: N/Av

11.1 Acute Overexposure:

Primary Skin Irritation Index: N/Av N/Av

Primary Eye Irritation Index: N/Av N/Av

11.2 Further information

None.

Ingredients information

CAS No.	Component	LD50 (mg/kg)	Test Animal:
584-08-7	potassium carbonate	1870	Rats
10117-38-1	potassium sulfite	N/Av	
7757-83-7	sodium sulfite	820	Mice
123-31-9	hydroquinone	320	Rats
111-46-6	diethyleneglycol	12565	Rats

**12 Ecological information**

Ecotox Data: N/Av

Chemical Fate Data: N/Av

Ingredients information

CAS No.	Component	Fish Toxicity	Fish Organism
584-08-7	potassium carbonate	LC50 N/Av	
10117-38-1	potassium sulfite	LC50 130 mg/L	Not identified
7757-83-7	sodium sulfite	LC50 N/Av	
123-31-9	hydroquinone	LC50 0.15 - 0.16 mg/L	Golden orfe
111-46-6	diethyleneglycol	LC50 9630/8450mg/L	Golden orfe

**13 Disposal considerations**

Dispose of according to local and national regulations.  
 Containers must be disposed of in accordance with local regulations.

13.1 EC-Waste Code: 090101

13.2 Origin: Photographic Industry

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**14 Transport information**

14.1	GGVE / GGVS RID / ADR  UN-No. Tremcard Further information	Class ---- Class ---- ---- ---- Material not classified for transport at land (road, rail, barge).	Cipher ---- Cipher ---- ----- ----- -----	----- ----- ----- ----- -----
14.2	GGVSee ADNR UN-No. IMDG-code page EMS MFAG Packing group Further information	Class ---- Class ---- ---- ---- ---- ---- ---- Material not classified for transport at sea.	----- ----- ----- ----- ----- ----- ----- -----	----- ----- ----- ----- ----- ----- ----- -----
14.3	ICAO / IATA-GDR UN-No. PSN Subsidiary risk  Labels Packing group Passenger aircraft Cargo aircraft only Further information	---- ---- ---- ---- ---- ---- ---- Packing Instruction ---- Packing Instruction ---- Material not classified for air transport.	----- ----- ----- ----- ----- ----- ----- max. ---- max. ---- -----	----- ----- ----- ----- ----- ----- ----- ----- ----- -----

**15 Regulatory information**

15		This product requires classification according to the criteria of the EC.		
15.1	UN-No.	----		
15.2	Swiss toxicity class	3		
15.3	EC-No.	----		
15.4	Hazard symbols	<b>Xi</b> 		
15.5	Hazard designation	Xi: Irritant. Contains hydroquinone		
15.6	Risk phrases	<b>R: 43</b> 43	May cause sensitisation by skin contact.	
15.7	Safety phrases	<b>S: 24-37</b> 24	Avoid contact with skin.	
		37	Wear suitable gloves.	

# EC Safety Data Sheet



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15.8 TLV / MAK/...  
CAS Nr. 123-31-9: Hydroch.: -----  
MAK: 2 mg/m3  
U.S.A. ACGIH TWA: 2 mg/m3

15.9 BVD classification ----- N/Ap

15.10 VbF ----- N/Ap

15.11 Further information None.

**16 Other information** The use of the preparation is restricted to professional users!

*The above mentioned data correspond to our present state of knowledge and experience. The safety data sheet serves as description of the products in regard to necessary safety measures. The indications have not the meaning of guarantees on properties.*

N/Av = Not available N/Ap = Not applicable