

# MATERIAL SAFETY DATA SHEET

Catalogue N°: 967430      Date: 24/10/2004

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1. Identification of the substance or preparation

**X-DEV HF DEVELOPER REPLENISHER 6L**

1.2. Use of the substance/preparation

Photographic developer

1.3. Company/undertaking identification

FUJI HUNT PHOTOGRAPHIC CHEMICALS NV.

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1.4. Emergency telephone

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## 2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation: aqueous solution

Components contributing to hazard:

w/w%	CAS N°	EINECS N°	Components Symb. R-phrases
3-7	111-46-6	203-872-2	DIETHYLENE GLYCOL Xn R:22
1-2	13047-13-7	235-920-3	4-HYDROXYMETHYL-4-METHYL-1-PHENYL-3-PYRAZOLIDONE XnN R:22-48-51/53
5-10	123-31-9	204-617-8	HYDROQUINONE XnN R:22-40-41-43-50-68

## 3. HAZARDS IDENTIFICATION

Most important hazards :

Irritating to eyes.

Limited evidence of a carcinogenic effect.

May cause sensitization by skin contact.

Possible risk of irreversible effects.

## 4. FIRST AID MEASURES

Eye contact

Irrigate with flowing water immediately and continuously for 15 minutes.

Consult medical personnel.

Skin contact

Immediately flush with plenty of water for at least 15 minutes while

removing contaminated clothing

Ingestion

Consult a physician or transport to emergency facility immediately.

Inhalation

Remove to fresh air. Consult a physician.

Further information

Overexposure may lead to allergic skin reactions with sensitized people. In

this case, seek medical advice.

## 5. FIRE-FIGHTING MEASURES

- 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.

## **6. ACCIDENTAL RELEASE MEASURES**

- Wear adequate personal protective equipment, see section 8 ( exposure control / personal protection ).
- Spills should be contained by and carried with suitable absorbent material and removed from disposal.
- Dispose of according to local and national regulations.
- Prevent from entering into soil, waterways and groundwater.

## **7. HANDLING AND STORAGE**

- 7.1. Handling  
Avoid eye and skin contact. Wash hands and exposed skin before eating, drinking or smoking and after work. Use only in a well ventilated area. Ingestion, exposure to skin and eyes and inhalation of any generated vapours should be avoided. Wear suitable protective clothing, gloves and eye/face protection. Do not consume or store food in the working area.
- 7.2. Storage  
Keep containers tightly closed. Store in a well ventilated, cool, dry area. Storage temperature should be higher than +5°C.

## **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

- 8.1. Exposure limit values (INGREDIENTS INFORMATION)
- |  |                                 |
|--|---------------------------------|
| DIETHYLENE GLYCOL                                |                                 |
| MAK-value( TRGS 900 )                            | = 10 ppm - 44 mg/m <sup>3</sup> |
| 4-HYDROXYMETHYL-4-METHYL-1-PHENYL-3-PYRAZOLIDONE |                                 |
| MAK-value( TRGS 900 )                            | = NAV                           |
| TLV-TWA  | = NAV                           |
| HYDROQUINONE                                     |                                 |
| MAK-value( TRGS 900 )                            | = 2E mg/m <sup>3</sup>          |
| TLV-TWA  | = 2 mg/m <sup>3</sup>           |
- 8.2. Exposure controls  
Respiratory protection: no respiratory protection needed under normal conditions. Good ventilation should be sufficient.  
Hand protection: use chemical resistant gloves. In case of prolonged immersion or frequently repeated contact use gloves made of the materials : nitrile rubber (thickness >= 0,38 mm, breakthrough time > 480 min) neoprene (thickness >= 0,65 mm, breakthrough time > 240 min). butyl rubber (thickness >= 0,36 mm, breakthrough time > 480 min)  
For intermittent splash protection corresponding gloves with breakthrough time > 60 min can be used.  
Avoid gloves made of : natural rubber.  
Eye protection: use chemical safety goggles. Eye wash fountain should be located in immediate work area.  
Other: appropriate protective clothing.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	: Liquid
Flash point °C	: NA
Density (20°C) Kg/L	: 1.244
Solubility in water (25°C)	: Completely
pH value (25°C)	: 10.77
Viscosity	: As water

## **10. STABILITY AND REACTIVITY**

- 10.1. Conditions to avoid  
The product is stable under normal storage conditions.
- 10.2. Materials to avoid  
Keep away from oxidising material(s).
- 10.3. Hazardous decomposition products  
Formation of CO<sub>2</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub> is possible.

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity (INGREDIENTS INFORMATION)

DIETHYLENE GLYCOL		
LD50 (Oral Rat)	=	12565 mg/kg
LD50 (Dermal rabbit)	=	11890 mg/kg
4-HYDROXYMETHYL-4-METHYL-1-PHENYL-3-PYRAZOLIDONE		
LD50 (Oral Rat)	=	1300 mg/kg
HYDROQUINONE		
LD50 (Oral Rat)	=	320 mg/kg

### Eye contact

Irritating to eyes.

### Skin contact

May cause sensitization by skin contact.

### Further information

Limited evidence of a carcinogenic effect.  
Possible risk of irreversible effects.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity (INGREDIENTS INFORMATION)

DIETHYLENE GLYCOL		
LC50 (Pimephales promelas, 96h)	=	> 100 mg/L
4-HYDROXYMETHYL-4-METHYL-1-PHENYL-3-PYRAZOLIDONE		
LC50 (Fish)	=	1 - 10 mg/l
LC50 (Daphnia magna straus, 24h)	=	7,1 mg/l
HYDROQUINONE		
LC50 (Rainbow trout, 96h)	=	0,097 mg/l

## 13. DISPOSAL CONSIDERATIONS

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

EWC: 09 01 01 Water-based developer and activator solutions

## 14. TRANSPORT INFORMATION

Product is not classified for any mode of transportation.

UN N° : -	PSN : NON HAZARDOUS LIQUID		
ADR/RID	Class : NA	Item :NA	TREMCARD :NA
	Pack.gr.: NA		
IMDG/ADNR	Class : NA	EmS :NA	Mar.Poll. :N
	Pack.gr.: NA		
ICAO/IATA	Class : NA	Pass. < :NA	Instr. :NA
	Pack.gr.: NA	Cargo < :NA	Instr. :NA

## 15. REGULATORY INFORMATION

### EU Classification and User Label Information:

Contains : HYDROQUINONE

Symbol(s) : Xn

R(isk) phrase(s) :

- R36 : Irritating to eyes.
- R40 : Limited evidence of a carcinogenic effect.
- R43 : May cause sensitization by skin contact.
- R68 : Possible risk of irreversible effects.

S(safety) phrase(s) :

S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

Other information :

WGK: 2

## 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.

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Date of issue: 01.04.2004

Supersedes edition of -  
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NAv : Not available      NA : Not applicable  
RISK PHRASES MENTIONED IN PARAGRAPH 2:  
R22 : Harmful if swallowed.  
R40 : Limited evidence of a carcinogenic effect.  
R41 : Risk of serious damage to eyes.  
R43 : May cause sensitization by skin contact.  
R48 : Danger of serious damage to health by prolonged exposure.  
R50 : Very toxic to aquatic organisms.  
R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R68 : Possible risk of irreversible effects.

**List of distributors :**

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