

# Material Safety Data Sheets

## FUJIFILM UK Ltd

### Chemical system: CN16S

**Film processor model:**

**FP363SC – FP563SC – FP363SC AL - FP563SC AL  
- Version CN16S**

#### Contents:

Product	Product No. (SDS)	Current update
<b>Cartridge</b>		
FJ CN - 16S NC1 REPLENISHER N1RA	967026	26.07.08
FJ CN - 16S NC2 REPLENISHER N1RB	990077	26.07.08
FJ CN - 16S NC1 REPLENISHER N2R	967026	26.07.08
FJ CN - 16S NC1 REPLENISHER N3R	967026	26.07.08
FJ CN - 16S NC2 REPLENISHER N4R 400 ml	990077	26.07.08
FJ SUPERCONDITIONING TABLETS 100 PCE	961847	26.07.08
<b>Start-up kits</b>		
FJ CN – 16S N1 A 5,2 L	975003	26.07.08
FJ CN – 16S N1 B 5,2 L	975003	26.07.08
FJ CN – 16S N1 C 5,2 L	975003	26.07.08
FJ CN - 16S N2 3,6 L	975011	26.07.08
FJ CN - 16S N3 3,6 L	975029	26.07.08
FJ CN - 16S N4 1,9 L	990069	26.07.08

(49 pages, inclusive of cover)

#### Material Safety Data Sheets

Material Safety Data Sheets (MSDS) provide important health and safety information for working with our chemicals. The Fujifilm MSDS information is updated regularly, to check for updates please email us direct at:

[environment@fuji.co.uk](mailto:environment@fuji.co.uk)

The MSDS posted on this site are valid only for products sold by FUJIFILM UK Ltd into the UK market as product ingredients, size, name, and product code may vary depending on the geographic market. The information should be used to assist you in making an independent assessment of the best method to safeguard your workers and the environment, required in the UK under the Control of Substances Hazardous to Health Regulations (COSHH). The data is not an assessment of hazards but will describe the hazards, helping your assessment in the workplace.

**Note: FUJIFILM UK Ltd CANNOT guarantee that the version of a particular MSDS posted on the website at any given time is the most current version of the MSDS for the product you are using. We encourage you to check regularly for updates or email us direct at:**

[environment@fuji.co.uk](mailto:environment@fuji.co.uk)

Release date: 18<sup>th</sup> September 2008



According to 1907/2006/EC

# MATERIAL SAFETY DATA SHEET

Catalogue N° : 967026 Printing date : 26/07/2008

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. Identification of the substance or preparation

**FJ CN-16S NC1 REPLENISHER N1RA**

1.2. Use of the substance/preparation

Photographic developer

1.3. Company/undertaking identification

FUJIFILM Europe NV

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## 2. HAZARDS IDENTIFICATION

Most important hazards :

May cause sensitization by skin contact.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation: aqueous solution

Components contributing to hazard:

w/w%	CAS N°	EINECS N°	Components	
			Symb.	R-phrases
1-5	111-46-6	203-872-2	DIETHYLENE GLYCOL	Xn R:22
.	.	.	HYDROXYLAMINE DERIVATIVE	- R:52/53
1-5	133986-51-3	407-370-6	P-PHENYLENEDIAMINE DERIVATIVE	T N R:25-43-48/22-50/53
0,5-1,5	.	247-162-0	POTASSIUM CARBONATE	Xi R:36/38
.	25646-77-9	.		
5-10	584-08-7	209-529-3		
.	.	.		

## 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 ( Deutschland, TRGS 900 ) = 10 ppm - 44 mg/m<sup>3</sup>

**HYDROXYLAMINE DERIVATIVE**

TLV-TWA = NAV

**P-PHENYLENEDIAMINE DERIVATIVE**

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

**POTASSIUM CARBONATE**

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

**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  $\geq$  0,38 mm, breakthrough time > 480 min) neoprene (thickness  $\geq$  0,65 mm, breakthrough time > 240 min). butyl rubber (thickness  $\geq$  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
pH value (25°C)	: 10,5
Density (20°C) Kg/L	: 1,10
Solubility in water (25°C)	: Completely Soluble
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
HYDROXYLAMINE DERIVATIVE	
LD50 (Oral Rat)	= NAv
P-PHENYLENEDIAMINE DERIVATIVE	
LD50 (Oral Rat)	= 35 mg/kg
POTASSIUM CARBONATE	
LD50 (Oral Rat)	= >2000 mg/kg

Skin contact  
May cause sensitization by skin contact.

## **12. ECOLOGICAL INFORMATION**

12.1. Ecotoxicity (INGREDIENTS INFORMATION)

DIETHYLENE GLYCOL	
LC50 (Fish, 96 hours)	= > 32000 mg/L
HYDROXYLAMINE DERIVATIVE	
LC50 (Fish, 96 hours)	= NAv
P-PHENYLENEDIAMINE DERIVATIVE	
LC50 (Fish, 96 hours)	= 0,5 mg/l
POTASSIUM CARBONATE	
LC50 (Fish, 96 hours)	= NAv

12.2. Mobility  
Not available

12.3. Persistence and Degradability  
Not available

12.4. Bioaccumulative potential  
Not available

12.5. Other adverse effects

## **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**

UN N° : -  
PSN :NON HAZARDOUS LIQUID  
ADR/RID

Class:	NA	Labels	:-	Pack. Group:-
Tun.Code	:NA	TREMcard	:NA	Spec. Prov.:-
Pack. Inst.:	-			Lim. Quant.:-

IMDG

Class:	NA	Subs. Risk	:NA	Pack. Group:NA
EmS fire:	NA	EmS Spill.	:NA	IBC. Inst. :-
Pack. Inst.:	-			Lim. Quant.:-
				Mar.Poll:N

ICAO/IATA

Class:	NA	Subs. Risk	:NA	Pack. Group:NA
Passenger and Cargo Aircraft.		Pkg Inst:	NA	Max Net Qty/Pkg:NA
Cargo Aircraft Only	.	Pkg Inst:	NA	Max Net Qty/Pkg:NA
Ltd Qty	.	Pkg Inst:-		Max Net Qty/Pkg:-

## **15. REGULATORY INFORMATION**

EU Classification and User Label Information:

Contains : P-PHENYLENEDIAMINE DERIVATIVE

Symbol(s) : Xi

R(isk) phrase(s) :

R43 : May cause sensitization by skin contact.

R52/53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S(afety) phrase(s) :

S24 : Avoid contact with skin.

S37 : Wear suitable gloves.

Other information :

WGK: 2

BAG T n° (CH): 617 484

Toxicity class (CH): 4

## **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: 11.05.2006

Supersedes edition of: 01.10.2005  
-----

NAv : Not available      NA : Not applicable

RISK PHRASES MENTIONED IN PARAGRAPH 2:

R22 : Harmful if swallowed.

R25 : Toxic if swallowed.

R36/38 : Irritating to eyes and skin.

R43 : May cause sensitization by skin contact.

R48/22 : Harmful: danger of serious damage to health by prolonged exposure if swallowed.

R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R52/53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.



According to 1907/2006/EC

# MATERIAL SAFETY DATA SHEET

Catalogue N° : 990077 Printing date : 26/07/2008

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. Identification of the substance or preparation

**FJ CN-16S NC2 REPLENISHER N1RB**

1.2. Use of the substance/preparation

Photographic developer

1.3. Company/undertaking identification

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## 2. HAZARDS IDENTIFICATION

Most important hazards :

May cause sensitization by skin contact.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation: aqueous solution

Components contributing to hazard:

w/w%	CAS N°	EINECS N°	Components
			Symb. R-phrases
5-10	10039-54-0	233-118-8	HYDROXYLAMINE SULPHATE XnN R:22-36/38-43-48/22-50

## 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)

HYDROXYLAMINE SULPHATE

MAK ( Deutschland, TRGS 900 ) = NAV  
TLV-TWA = NAV

## 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  $\geq$  0,38 mm, breakthrough time  $>$  480 min) neoprene (thickness  $\geq$  0,65 mm, breakthrough time  $>$  240 min) butyl rubber (thickness  $\geq$  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
pH value (25°C)	: 3,80
Density (20°C) Kg/L	: 1,044
Solubility in water (25°C)	: Completely Soluble
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, NH<sub>3</sub>, NO<sub>x</sub>, H<sub>2</sub>S, SO<sub>2</sub> is possible.

## **11. TOXICOLOGICAL INFORMATION**

Acute toxicity (INGREDIENTS INFORMATION)

HYDROXYLAMINE SULPHATE

LD50 (Oral Rat) = 600 mg/kg

LD50 (Dermal rabbit) = 1500 mg/kg

Hydroxylamine sulphate: there is limited evidence of carcinogenicity in long term oral studies in rats.

Skin contact

May cause sensitization by skin contact.

## **12. ECOLOGICAL INFORMATION**

12.1. Ecotoxicity (INGREDIENTS INFORMATION)

HYDROXYLAMINE SULPHATE

LC50 (Pimephales promelas, 96h) = 7,2 mg/L

LC50 (Daphnia, 48h) = 1,6 mg/L

12.2. Mobility

Not available

12.3. Persistence and Degradability

Not available

12.4. Bioaccumulative potential

Not available

12.5. Other adverse effects

## **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**

UN N° : -

PSN :NON HAZARDOUS LIQUID

ADR/RID

Class:	NA	Labels	:-	Pack. Group:-
Tun.Code	:NA	TREMc card	:NA	Spec. Prov.:-
Pack. Inst.:	-	Lim. Quant.:	:-	

IMDG

Class:	NA	Subs. Risk	:NA	Pack. Group:NA
EmS fire:	NA	EmS Spill.	:NA	IBC. Inst. :-
Pack. Inst.:	-	Lim. Quant.:	:- Mar.Poll:N	

ICAO/IATA

Class:	NA	Subs. Risk	:NA	Pack. Group:NA
Passenger and Cargo Aircraft.		Pkg Inst:	NA	Max Net Qty/Pkg:NA
Cargo Aircraft Only	.	Pkg Inst:	NA	Max Net Qty/Pkg:NA
Ltd Qty	.	Pkg Inst:	-	Max Net Qty/Pkg:-

## **15. REGULATORY INFORMATION**

EU Classification and User Label Information:

Contains : HYDROXYLAMINE SULPHATE

Symbol(s) : Xi

R(isk) phrase(s) :

R43 : May cause sensitization by skin contact.

S(afety) phrase(s) :

S24 : Avoid contact with skin.

S37 : Wear suitable gloves.

Other information :

WGK: 3

BAG T n° (CH): 611 484

Toxicity class (CH): 4

## **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.

-----  
Date of issue: 01.10.2005

Supersedes edition of: 01.04.2004  
-----

NAv : Not available      NA : Not applicable

RISK PHRASES MENTIONED IN PARAGRAPH 2:

R22           :   Harmful if swallowed.

R36/38       :   Irritating to eyes and skin.

R43           :   May cause sensitization by skin contact.

R48/22       :   Harmful: danger of serious damage to health by prolonged exposure

if

swallowed.

R50           :   Very toxic to aquatic organisms.



According to 1907/2006/EC

# MATERIAL SAFETY DATA SHEET

Catalogue N° : 967026 Printing date : 26/07/2008

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. Identification of the substance or preparation

**FJ CN-16S NC1 RPLENISHER N2R**

1.2. Use of the substance/preparation

Photographic bleaching bath

1.3. Company/undertaking identification

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## 2. HAZARDS IDENTIFICATION

Most important hazards :

Irritating to eyes.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation: aqueous solution

Components contributing to hazard:

w/w%	CAS N°	EINECS N°	Components Symb. R-phrases
1-5	288-32-4	206-019-2	IMIDAZOLE C R:22-34
1-5	6484-52-2	229-347-8	AMMONIUM NITRATE O R:8-9
3-7	52-2	203-740-4	SUCCINIC ACID Xi R:41
1-5	110-15-6	203-742-5	MALEIC ACID Xn R:22-36/37/38
.	110-16-7	.	
.	.	.	

## 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

None

## **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)

IMIDAZOLE

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

AMMONIUM NITRATE

TLV-TWA = NAV

SUCCINIC ACID

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

MALEIC ACID

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

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  $\geq 0,38$  mm, breakthrough time  $> 480$  min) neoprene (thickness  $\geq 0,65$  mm, breakthrough time  $> 240$  min). butyl rubber (thickness  $\geq 0,36$  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
pH value (25°C)	: 3,80
Density (20°C) Kg/L	: 1,174
Solubility in water (25°C)	: Completely Soluble
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 reducing agents.

## 10.3. Hazardous decomposition products

Formation of CO<sub>2</sub>, CO, NO<sub>x</sub>, NH<sub>3</sub> is possible.

**11. TOXICOLOGICAL INFORMATION**

## Acute toxicity (INGREDIENTS INFORMATION)

## IMIDAZOLE

LD50 (Oral Rat) = 970 mg/kg

## AMMONIUM NITRATE

LD50 (Oral Rat) = 2217 mg/kg

## SUCCINIC ACID

LD50 (Oral Rat) = 2260 mg/kg

## MALEIC ACID

LD50 (Oral Rat) = 708 mg/kg

LD50 (Dermal rabbit) = 1560 mg/kg

LC50 (Inhalation rat) = 720 mg/m<sup>3</sup>

## Eye contact

Irritating to eyes.

**12. ECOLOGICAL INFORMATION**

## 12.1. Ecotoxicity (INGREDIENTS INFORMATION)

## IMIDAZOLE

LC50 (Daphnia, 48h) = 341,5 mg/l

## AMMONIUM NITRATE

LC50 (Fish, 96 hours) = NAv

## SUCCINIC ACID

LC50 (Fish, 96 hours) = NAv

## MALEIC ACID

LC50 (Pimephales promelas, 96h) = 5 mg/l

## 12.2. Mobility

Not available

## 12.3. Persistence and Degradability

Not available

## 12.4. Bioaccumulative potential

Not available

## 12.5. Other adverse effects

**13. DISPOSAL CONSIDERATIONS**

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

EWC: 09 01 05 Bleach solutions and bleach fixer solutions

**14. TRANSPORT INFORMATION**

UN N° : -

PSN :NON HAZARDOUS LIQUID

ADR/RID

Class: NA

Labels :-

Pack. Group:-

Tun.Code :NA	TREMcard :NA	Spec. Prov.:-
Pack. Inst.: -		Lim. Quant.:-
IMDG		
Class: NA	Subs. Risk :NA	Pack. Group:NA
EmS fire: NA	EmS Spill. :NA	IBC. Inst. :-
Pack. Inst.: -	Lim. Quant.:-	Mar.Poll:N
ICAO/IATA		
Class: NA	Subs. Risk :NA	Pack. Group:NA
Passenger and Cargo Aircraft.	Pkg Inst:NA	Max Net Qty/Pkg:NA
Cargo Aircraft Only	. Pkg Inst:NA	Max Net Qty/Pkg:NA
Ltd Qty	. Pkg Inst:-	Max Net Qty/Pkg:-

## **15. REGULATORY INFORMATION**

EU Classification and User Label Information:

Contains : -

Symbol(s) : Xi

R(isk) phrase(s) :

R36 : Irritating to eyes.

S(afety) phrase(s) :

S26 : In case of contact with eyes, rinse immediately with plenty of water and

seek medical advice.

Other information :

WGK: 2

BAG T n° (CH): 611 484

Toxicity class (CH): 4

## **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.

-----  
Date of issue: 17.01.2006

Supersedes edition of: 01.10.2005  
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Nav : Not available NA : Not applicable

RISK PHRASES MENTIONED IN PARAGRAPH 2:

R22 : Harmful if swallowed.

R34 : Causes burns.

R36/37/38: Irritating to eyes, respiratory system and skin.

R41 : Risk of serious damage to eyes.

R8 : Contact with combustible material may cause fire.

R9 : Explosive when mixed with combustible material.



According to 1907/2006/EC

# MATERIAL SAFETY DATA SHEET

Catalogue N° : 967026 Printing date : 26/07/2008

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. Identification of the substance or preparation

**FJ CN-16S NC1 REPLENISHER N3R**

1.2. Use of the substance/preparation

Photographic fixer

1.3. Company/undertaking identification

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1.4. Emergency telephone

+44 844 553 23 12

## 2. HAZARDS IDENTIFICATION

Most important hazards :

Irritating to eyes and skin.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation: aqueous solution

Components contributing to hazard:

w/w%	CAS N°	EINECS N°	Components
			Symb. R-phrases
3-7	10192-30-0	233-469-7	AMMONIUM HYDROGEN SULFITE C R:31-34
1-5	288-32-4	206-019-2	IMIDAZOLE C R:22-34

## 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

None

## **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)

#### AMMONIUM HYDROGEN SULFITE

MAK ( Deutschland, TRGS 900 ) = NAV  
TLV-TWA = NAV

#### IMIDAZOLE

MAK ( Deutschland, TRGS 900 ) = NAV  
TLV-TWA = NAV

### 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  $\geq 0,38$  mm, breakthrough time  $> 480$  min) neoprene (thickness  $\geq 0,65$  mm, breakthrough time  $> 240$  min). butyl rubber (thickness  $\geq 0,36$  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
pH value (25°C)	: 7,05
Density (20°C) Kg/L	: 1,305
Solubility in water (25°C)	: Completely Soluble
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

None.

## 10.3. Hazardous decomposition products

Formation of CO<sub>2</sub>, CO, NH<sub>3</sub>, NO<sub>x</sub>, H<sub>2</sub>S, SO<sub>2</sub> is possible.

**11. TOXICOLOGICAL INFORMATION**

## Acute toxicity (INGREDIENTS INFORMATION)

## AMMONIUM HYDROGEN SULFITE

LD50 (Oral Rat) = NAv

## IMIDAZOLE

LD50 (Oral Rat) = 970 mg/kg

## Eye contact

Irritating to eyes.

## Skin contact

Irritating to skin.

**12. ECOLOGICAL INFORMATION**

## 12.1. Ecotoxicity (INGREDIENTS INFORMATION)

## AMMONIUM HYDROGEN SULFITE

LC50 (Fish, 96 hours) = NAv

## IMIDAZOLE

LC50 (Daphnia, 48h) = 341,5 mg/l

## 12.2. Mobility

Not available

## 12.3. Persistence and Degradability

Not available

## 12.4. Bioaccumulative potential

Not available

## 12.5. Other adverse effects

**13. DISPOSAL CONSIDERATIONS**

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

EWC: 09 01 04 Fixer solutions

**14. TRANSPORT INFORMATION**

UN N° : -

PSN :NON HAZARDOUS LIQUID

ADR/RID

Class: NA Labels :- Pack. Group:-

Tun.Code :NA TREMcard :NA Spec. Prov.:-

Pack. Inst.: - Lim. Quant.:-

IMDG

Class: NA Subs. Risk :NA Pack. Group:NA

EmS fire: NA EmS Spill. :NA IBC. Inst. :-

Pack. Inst.: - Lim. Quant.:- Mar.Poll:N

ICAO/IATA

Class: NA Subs. Risk :NA Pack. Group:NA

Passenger and Cargo Aircraft. Pkg Inst:NA Max Net Qty/Pkg:NA

Cargo Aircraft Only . Pkg Inst:NA Max Net Qty/Pkg:NA

Ltd Qty . Pkg Inst:- Max Net Qty/Pkg:-

**15. REGULATORY INFORMATION**

EU Classification and User Label Information:

Contains : AMMONIUM HYDROGEN SULFITE

Symbol(s) : Xi

R(isk) phrase(s) :

R36/38 : Irritating to eyes and skin.

S(safety) phrase(s) :

S26 : In case of contact with eyes, rinse immediately with plenty of water and

seek medical advice.

Other information :

WGK: 1

BAG T n° (CH): 611 484

Toxicity class (CH): 4

## **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.

-----  
Date of issue: 01.10.2005

Supersedes edition of: 01.04.2004  
-----

NAv : Not available      NA : Not applicable

RISK PHRASES MENTIONED IN PARAGRAPH 2:

R22 : Harmful if swallowed.

R31 : Contact with acids liberates toxic gas.

R34 : Causes burns.



According to 1907/2006/EC

# MATERIAL SAFETY DATA SHEET

Catalogue N° : 990077 Printing date : 26/07/2008

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. Identification of the substance or preparation

**FJ CN-16S NC2 REPLENISHER N4R 400ML**

1.2. Use of the substance/preparation

Stabilizer

1.3. Company/undertaking identification

FUJIFILM Europe NV

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## 2. HAZARDS IDENTIFICATION

Most important hazards :

May cause sensitization by skin contact.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation: aqueous solution

Components contributing to hazard:

w/w%	CAS N°	EINECS N°	Components Symb. R-phrases
0,1-1 .	2634-33-5 .	220-120-9 .	1,2-BENZISOTHIAZOLIN-3-ONE XnN R:22-38-41-43-50

## 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)

1,2-BENZISOTHIAZOLIN-3-ONE

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

## 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  $\geq$  0,38 mm, breakthrough time  $>$  480 min) neoprene (thickness  $\geq$  0,65 mm, breakthrough time  $>$  240 min) butyl rubber (thickness  $\geq$  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
pH value (25°C)	: 8,27
Density (20°C) Kg/L	: 1,005
Solubility in water (25°C)	: Completely Soluble
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

None.

## 10.3. Hazardous decomposition products

Formation of CO<sub>2</sub> and CO fumes is possible.

## **11. TOXICOLOGICAL INFORMATION**

Acute toxicity (INGREDIENTS INFORMATION)

1,2-BENZISOTHIAZOLIN-3-ONE

LD50 (Oral Rat) = 1020 mg/kg

LD50 (Dermal rabbit) = > 2000 mg/kg

Skin contact

May cause sensitization by skin contact.

## **12. ECOLOGICAL INFORMATION**

12.1. Ecotoxicity (INGREDIENTS INFORMATION)

1,2-BENZISOTHIAZOLIN-3-ONE

LC50 (Fish, 96 hours) = NAv

LC50 (Daphnia, 48h) = 1,5 mg/l

12.2. Mobility

Not available

12.3. Persistence and Degradability

Not available

12.4. Bioaccumulative potential

Not available

12.5. Other adverse effects

## **13. DISPOSAL CONSIDERATIONS**

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

EWC: 09 01 99 Wastes not otherwise specified

## **14. TRANSPORT INFORMATION**

UN N° : -

PSN :NON HAZARDOUS LIQUID

ADR/RID

Class: NA Labels :- Pack. Group:-

Tun.Code :NA TREMcard :NA Spec. Prov.:-

Pack. Inst.: - Lim. Quant.:-

IMDG

Class: NA Subs. Risk :NA Pack. Group:NA

EmS fire: NA EmS Spill. :NA IBC. Inst. :-

Pack. Inst.: - Lim. Quant.:- Mar.Poll:N

ICAO/IATA

Class: NA Subs. Risk :NA Pack. Group:NA

Passenger and Cargo Aircraft. Pkg Inst:NA Max Net Qty/Pkg:NA

Cargo Aircraft Only . Pkg Inst:NA Max Net Qty/Pkg:NA

Ltd Qty . Pkg Inst:- Max Net Qty/Pkg:-

## **15. REGULATORY INFORMATION**

EU Classification and User Label Information:

Contains : 1,2-BENZISOTHIAZOLIN-3-ONE

Symbol(s) : Xi

R(isk) phrase(s) :

R43 : May cause sensitization by skin contact.

S(afety) phrase(s) :

S24 : Avoid contact with skin.

S37 : Wear suitable gloves.

Other information :

WGK: 1

BAG T n° (CH): 611 463

Toxicity class (CH): 3

## **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: 01.10.2005

Supersedes edition of: 01.04.2004

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NAv : Not available      NA : Not applicable

RISK PHRASES MENTIONED IN PARAGRAPH 2:

R22        :    Harmful if swallowed.  
R38        :    Irritating to skin.  
R41        :    Risk of serious damage to eyes.  
R43        :    May cause sensitization by skin contact.  
R50        :    Very toxic to aquatic organisms.



According to 1907/2006/EC

# MATERIAL SAFETY DATA SHEET

Catalogue N° : 961847 Printing date : 26/07/2008

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. Identification of the substance or preparation

**FJ SUPERCONDITIONING TABLETS 100 PCE**

1.2. Use of the substance/preparation

Photographic solution

1.3. Company/undertaking identification

FUJIFILM Europe NV

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## 2. HAZARDS IDENTIFICATION

Most important hazards :

Harmful if swallowed.

Contact with acids liberates toxic gas.

Irritating to eyes and respiratory system.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation: powder

Components contributing to hazard:

w/w%	CAS N°	EINECS N°	Components	
			Symb.	R-phrases
10-20	2893-78-9	220-767-7	TROCLOSENE SODIUM	OXnN R:8-22-31-36/37-50/53

## 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

None

## **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)

TROCLOSENE SODIUM

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

### 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  $\geq 0,38$  mm, breakthrough time  $> 480$  min) neoprene (thickness  $\geq 0,65$  mm, breakthrough time  $> 240$  min).

butyl rubber (thickness  $\geq 0,36$  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**

Density (20°C) Kg/L	: 0,999
pH value (25°C)	: 0,999
Appearance	: Solid
Colour	: White
Solubility in water (25°C)	: Completely Soluble

## **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 acids.

Keep away from alkalis.

Keep away from oxidising material(s).

### 10.3. Hazardous decomposition products

Formation of CO<sub>2</sub>, CO and Cl<sub>2</sub> fumes is possible.

## **11. TOXICOLOGICAL INFORMATION**

Acute toxicity (INGREDIENTS INFORMATION)

PREPARATION

LD50 (Oral Rat) = > 5000 mg/kg

Eye contact

Irritating to eyes.

Ingestion

Harmful if swallowed.

Inhalation

Irritating to respiratory system.

## **12. ECOLOGICAL INFORMATION**

12.1. Ecotoxicity (INGREDIENTS INFORMATION)

PREPARATION

LD50 (Oral Rat) = -

12.2. Mobility

Not available

12.3. Persistence and Degradability

Not available

12.4. Bioaccumulative potential

Not available

12.5. Other adverse effects

## **13. DISPOSAL CONSIDERATIONS**

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

EWC: 09 01 99 Wastes not otherwise specified

## **14. TRANSPORT INFORMATION**

UN N° : -

PSN :NON HAZARDOUS SOLID

ADR/RID

Class:	NA	Labels	:-	Pack. Group:-
Tun.Code	:NA	TREMcard	:NA	Spec. Prov.:-
Pack. Inst.:	-	Lim. Quant.:	:-	

IMDG

Class:	NA	Subs. Risk	:NA	Pack. Group:NA
EmS fire:	NA	EmS Spill.	:NA	IBC. Inst. :-
Pack. Inst.:	-	Lim. Quant.:	:- Mar.Poll:N	

ICAO/IATA

Class:	NA	Subs. Risk	:NA	Pack. Group:NA
Passenger and Cargo Aircraft.		Pkg Inst:	NA	Max Net Qty/Pkg:NA
Cargo Aircraft Only		Pkg Inst:	NA	Max Net Qty/Pkg:NA
Ltd Qty		Pkg Inst:	-	Max Net Qty/Pkg:-

## **15. REGULATORY INFORMATION**

EU Classification and User Label Information:

Contains : TROCLOSENE SODIUM

Symbol(s) : Xn

R(isk) phrase(s) :

R22 : Harmful if swallowed.  
 R31 : Contact with acids liberates toxic gas.  
 R36/37 : Irritating to eyes and respiratory system.

S(afety) phrase(s) :

S22 : Do not breathe dust.  
 S26 : In case of contact with eyes, rinse immediately with plenty of water and

seek medical advice.

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.

-----  
Date of issue: 01.10.2005

Supersedes edition of: 01.04.2004  
-----

Nav : Not available      NA : Not applicable

RISK PHRASES MENTIONED IN PARAGRAPH 2:

R22           : Harmful if swallowed.

R31           : Contact with acids liberates toxic gas.

R36/37       : Irritating to eyes and respiratory system.

R50/53       : Very toxic to aquatic organisms, may cause long-term adverse effects in

the aquatic environment.

R8            : Contact with combustible material may cause fire.



removing contaminated clothing

Ingestion

Consult a physician or transport to emergency facility immediately.

Inhalation

Remove to fresh air. Consult a physician.

Further information

None

## **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 TRIAMINE PENTAACETIC ACID

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

N,N'-ETHYLENE UREA

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

DIETHYLENE GLYCOL

MAK ( Deutschland, TRGS 900 ) = 10 ppm - 44 mg/m<sup>3</sup>

POTASSIUM CARBONATE

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

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  $\geq$  0,38 mm, breakthrough time  $>$  480 min) neoprene (thickness  $\geq$  0,65 mm, breakthrough time  $>$  240 min). butyl rubber (thickness  $\geq$  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
Colour	: Colourless
pH value (25°C)	: 10,96
Flash point °C	:
Density (20°C) Kg/L	: 1,325
Solubility in water (25°C)	: Completely Soluble
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

None.

## 10.3. Hazardous decomposition products

Formation of CO<sub>2</sub>, CO, SO<sub>2</sub> is possible.

**11. TOXICOLOGICAL INFORMATION**

## Acute toxicity (INGREDIENTS INFORMATION)

## DIETHYLENE TRIAMINE PENTAACETIC ACID

LD50 (Oral Rat) = > 2000 mg/kg

## N,N'-ETHYLENE UREA

LD50 (Oral Rat) = > 5000 mg/kg

## DIETHYLENE GLYCOL

LD50 (Oral Rat) = 12565 mg/kg

LD50 (Dermal rabbit) = 11890 mg/kg

## POTASSIUM CARBONATE

LD50 (Oral Rat) = >2000 mg/kg

## Eye contact

Irritating to eyes.

## Skin contact

Irritating to skin.

**12. ECOLOGICAL INFORMATION**

## 12.1. Ecotoxicity (INGREDIENTS INFORMATION)

## DIETHYLENE TRIAMINE PENTAACETIC ACID

LC50 (Fish, 96 hours) = > 100 mg/l

## N,N'-ETHYLENE UREA

LC50 (Leuciscus idus, orfe, 96h) = > 10000 mg/l

LC50 (Daphnia, 48h) = > 100 mg/l

## DIETHYLENE GLYCOL

LC50 (Fish, 96 hours) = > 32000 mg/L

## POTASSIUM CARBONATE

LC50 (Fish, 96 hours) = NAv

## 12.2. Mobility

Not available

## 12.3. Persistence and Degradability

Not available

## 12.4. Bioaccumulative potential

Not available

## 12.5. Other adverse effects

**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**

UN N° : -

PSN :NON HAZARDOUS LIQUID

ADR/RID

Class: NA Labels :- Pack. Group:-  
 Tun.Code :NA TREMcard :NA Spec. Prov.:-  
 Pack. Inst.: - Lim. Quant.:-

IMDG

Class: NA Subs. Risk :NA Pack. Group:NA  
 EmS fire: NA EmS Spill. :NA IBC. Inst. :-  
 Pack. Inst.: - Lim. Quant.:- Mar.Poll:N

ICAO/IATA

Class: NA Subs. Risk :NA Pack. Group:NA  
 Passenger and Cargo Aircraft. Pkg Inst:NA Max Net Qty/Pkg:NA  
 Cargo Aircraft Only . Pkg Inst:NA Max Net Qty/Pkg:NA  
 Ltd Qty . Pkg Inst:- Max Net Qty/Pkg:-

## **15. REGULATORY INFORMATION**

EU Classification and User Label Information:

Contains : POTASSIUM CARBONATE

Symbol(s) : Xi

R(isk) phrase(s) :

R36/38 : Irritating to eyes and skin.

S(afety) phrase(s) :

S26 : In case of contact with eyes, rinse immediately with plenty of water and

seek medical advice.

Other information :

WGK: 1

BAG T n° (CH): 602 084

Toxicity class (CH): 4

## **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: 01.10.2005Supersedes edition of: 01.04.2004  
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NAv : Not available NA : Not applicable

RISK PHRASES MENTIONED IN PARAGRAPH 2:

R22 : Harmful if swallowed.

R36 : Irritating to eyes.

R36/38 : Irritating to eyes and skin.



According to 1907/2006/EC

# MATERIAL SAFETY DATA SHEET

Catalogue N° : 975003 Printing date : 26/07/2008

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. Identification of the substance or preparation

**FJ CN-16S N1 B** **5,2L**

1.2. Use of the substance/preparation

Photographic developer

1.3. Company/undertaking identification

FUJIFILM Europe NV	FUJIFILM UK Ltd.
EUROPARK-NOORD 21-22	St. Martins Way
B-9100 SINT NIKLAAS	St. Martins Business Centre
TEL : +32 3 760 02 00	BEDFORD
FAX : +32 3 776 91 22	MK42 OLF
	UNITED KINGDOM

PRODUCTSAFETY@FUJIFILM.EU

1.4. Emergency telephone

+44 844 553 23 12

## 2. HAZARDS IDENTIFICATION

Most important hazards :

May cause sensitization by skin contact.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation: aqueous solution

Components contributing to hazard:

w/w%	CAS N°	EINECS N°	Components Symb. R-phrases
0,5-1,5	67-43-6	200-652-8	DIETHYLENE TRIAMINE PENTAACETIC ACID Xi R:36
. 1-5	. 10039- 54-0	. 233-118-8	. HYDROXYLAMINE SULPHATE XnN R:22-36/38-43-48/22-50
7-15 .	. 133986- 51-3	407-370-6 .	HYDROXYLAMINE DERIVATIVE - R:52/53

## 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 TRIAMINE PENTAACETIC ACID

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

HYDROXYLAMINE SULPHATE

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

HYDROXYLAMINE DERIVATIVE

TLV-TWA = NAV

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  $\geq$  0,38 mm, breakthrough time  $>$  480 min) neoprene (thickness  $\geq$  0,65 mm, breakthrough time  $>$  240 min).

butyl rubber (thickness  $\geq$  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

pH value (25°C) : 3,55

Density (20°C) Kg/L : 1,095

Solubility in water (25°C) : Completely Soluble  
 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, NH<sub>3</sub>, NO<sub>x</sub>, H<sub>2</sub>S, SO<sub>2</sub> is possible.

## **11. TOXICOLOGICAL INFORMATION**

### Acute toxicity (INGREDIENTS INFORMATION)

#### DIETHYLENE TRIAMINE PENTAACETIC ACID

LD50 (Oral Rat) = > 2000 mg/kg

#### HYDROXYLAMINE SULPHATE

LD50 (Oral Rat) = 600 mg/kg

LD50 (Dermal rabbit) = 1500 mg/kg

#### HYDROXYLAMINE DERIVATIVE

LD50 (Oral Rat) = NAv

Hydroxylamine sulphate: there is limited evidence of carcinogenicity in long term oral studies in rats.

### Skin contact

May cause sensitization by skin contact.

## **12. ECOLOGICAL INFORMATION**

### 12.1. Ecotoxicity (INGREDIENTS INFORMATION)

#### DIETHYLENE TRIAMINE PENTAACETIC ACID

LC50 (Fish, 96 hours) = > 100 mg/l

#### HYDROXYLAMINE SULPHATE

LC50 (Pimephales promelas, 96h) = 7,2 mg/L

LC50 (Daphnia, 48h) = 1,6 mg/L

#### HYDROXYLAMINE DERIVATIVE

LC50 (Fish, 96 hours) = NAv

### 12.2. Mobility

Not available

### 12.3. Persistence and Degradability

Not available

### 12.4. Bioaccumulative potential

Not available

### 12.5. Other adverse effects

## **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**

UN N° : -

PSN :NON HAZARDOUS LIQUID

ADR/RID

Class: NA Labels :- Pack. Group:-

Tun.Code :NA TREMcard :NA Spec. Prov.:-

Pack. Inst.: - Lim. Quant.:-

IMDG

Class: NA Subs. Risk :NA Pack. Group:NA

EmS fire: NA EmS Spill. :NA IBC. Inst. :-

Pack. Inst.: - Lim. Quant.:- Mar.Poll:N

ICAO/IATA

Class: NA Subs. Risk :NA Pack. Group:NA

Passenger and Cargo Aircraft. Pkg Inst:NA Max Net Qty/Pkg:NA

Cargo Aircraft Only	.	Pkg Inst:NA	Max Net Qty/Pkg:NA
Ltd Qty	.	Pkg Inst:-	Max Net Qty/Pkg:-

## **15. REGULATORY INFORMATION**

EU Classification and User Label Information:

Contains : HYDROXYLAMINE SULPHATE

Symbol(s) : Xi

R(isk) phrase(s) :

R43 : May cause sensitization by skin contact.

S(afety) phrase(s) :

S24 : Avoid contact with skin.

S37 : Wear suitable gloves.

Other information :

WGK: 2

BAG T n° (CH): 611 484

Toxicity class (CH): 4

## **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.

-----  
Date of issue: 11.05.2006

Supersedes edition of: 01.10.2005  
-----

NAv : Not available      NA : Not applicable

RISK PHRASES MENTIONED IN PARAGRAPH 2:

R22 : Harmful if swallowed.

R36 : Irritating to eyes.

R36/38 : Irritating to eyes and skin.

R43 : May cause sensitization by skin contact.

R48/22 : Harmful: danger of serious damage to health by prolonged exposure  
if  
swallowed.

R50 : Very toxic to aquatic organisms.

R52/53 : Harmful to aquatic organisms, may cause long-term adverse effects  
in the  
aquatic environment.



According to 1907/2006/EC

# MATERIAL SAFETY DATA SHEET

Catalogue N° : 975003 Printing date : 26/07/2008

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. Identification of the substance or preparation

**FJ CN-16S N1 C** **5,2L**

1.2. Use of the substance/preparation

Photographic developer

1.3. Company/undertaking identification

FUJIFILM Europe NV	FUJIFILM UK Ltd.
EUROPARK-NOORD 21-22	St. Martins Way
B-9100 SINT NIKLAAS	St. Martins Business Centre
TEL : +32 3 760 02 00	BEDFORD
FAX : +32 3 776 91 22	MK42 OLF
	UNITED KINGDOM

PRODUCTSAFETY@FUJIFILM.EU

1.4. Emergency telephone

+44 844 553 23 12

## 2. HAZARDS IDENTIFICATION

Most important hazards :

Harmful if swallowed.

May cause sensitization by skin contact.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation: aqueous solution

Components contributing to hazard:

w/w%	CAS N°	EINECS N°	Components Symb. R-phrases
5-10	25646-77-9	247-162-0	P-PHENYLENEDIAMINE DERIVATIVE T N R:25-43-48/22-50/53

## 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)

P-PHENYLENEDIAMINE DERIVATIVE

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

### 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  $\geq 0,38$  mm, breakthrough time  $> 480$  min) neoprene (thickness  $\geq 0,65$  mm, breakthrough time  $> 240$  min). butyl rubber (thickness  $\geq 0,36$  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
Colour	: Pale pink
pH value (25°C)	: 2,27
Density (20°C) Kg/L	: 1,033
Solubility in water (25°C)	: Completely Soluble

## **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> is possible.

**11. TOXICOLOGICAL INFORMATION**

## Acute toxicity (INGREDIENTS INFORMATION)

P-PHENYLENEDIAMINE DERIVATIVE

LD50 (Oral Rat) = 35 mg/kg

## Skin contact

May cause sensitization by skin contact.

## Ingestion

Harmful if swallowed.

**12. ECOLOGICAL INFORMATION**

## 12.1. Ecotoxicity (INGREDIENTS INFORMATION)

P-PHENYLENEDIAMINE DERIVATIVE

LC50 (Fish, 96 hours) = 0,5 mg/l

## 12.2. Mobility

Not available

## 12.3. Persistence and Degradability

Not available

## 12.4. Bioaccumulative potential

Not available

## 12.5. Other adverse effects

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**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**

UN N° : 3265

PSN :CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

(Organic amine sulphate)

## ADR/RID

Class:	8	Labels	:8	Pack. Group:	III
Tun.Code	:E	TREMc card	:8.3265E-301	Spec. Prov.:	274
Pack. Inst.:	P001,IBC03,LP01,R001	Lim. Quant.:	LQ7		

## IMDG

Class:	8	Subs. Risk	:NA	Pack. Group:	III
EmS fire:	F-A	EmS Spill.	:S-B	IBC. Inst.:	IBC03
Pack. Inst.:	P001,LP01	Lim. Quant.:	5L	Mar.Poll:	N

## ICAO/IATA

Class:	8	Subs. Risk	:NA	Pack. Group:	III
Passenger and Cargo Aircraft.		Pkg Inst:	818	Max Net Qty/Pkg:	5L
Cargo Aircraft Only		Pkg Inst:	820	Max Net Qty/Pkg:	60L
Ltd Qty		Pkg Inst:	1L	Max Net Qty/Pkg:	Y818

**15. REGULATORY INFORMATION**

## EU Classification and User Label Information:

Contains : P-PHENYLENEDIAMINE DERIVATIVE

Symbol(s) : Xn N

R(isk) phrase(s) :

R22 : Harmful if swallowed.

R43 : May cause sensitization by skin contact.

R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

S(afety) phrase(s) :

S24 : Avoid contact with skin.  
S37 : Wear suitable gloves.  
S60 : This material and its container must be disposed of as hazardous waste.  
S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

Other information :

WGK: 3  
BAG T n° (CH): 617 463  
Toxicity class (CH): 3

## **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.

-----  
Date of issue: 27.03.2006  
Supersedes edition of: 01.10.2005  
-----

NAv : Not available      NA : Not applicable

RISK PHRASES MENTIONED IN PARAGRAPH 2:

R25 : Toxic if swallowed.  
R43 : May cause sensitization by skin contact.  
R48/22 : Harmful: danger of serious damage to health by prolonged exposure if  
swallowed.  
R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in  
the aquatic environment.



According to 1907/2006/EC

# MATERIAL SAFETY DATA SHEET

Catalogue N° : 975011 Printing date : 26/07/2008

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. Identification of the substance or preparation

**FJ CN-16S N2****3,6L**

1.2. Use of the substance/preparation

Photographic bleaching bath

1.3. Company/undertaking identification

FUJIFILM Europe NV

EUROPARK-NOORD 21-22

B-9100 SINT NIKLAAS

TEL : +32 3 760 02 00

FAX : +32 3 776 91 22

FUJIFILM UK Ltd.

St. Martins Way

St. Martins Business Centre

BEDFORD

MK42 OLF

UNITED KINGDOM

PRODUCTSAFETY@FUJIFILM.EU

1.4. Emergency telephone

+44 844 553 23 12

## 2. HAZARDS IDENTIFICATION

Most important hazards :

Irritating to eyes.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation: aqueous solution

Components contributing to hazard:

w/w%	CAS N°	EINECS N°	Components Symb. R-phrases
1-5	288-32-4	206-019-2	IMIDAZOLE C R:22-34
1-5	6484-52-2	229-347-8	AMMONIUM NITRATE O R:8-9
3-7	52-2	203-740-4	SUCCINIC ACID Xi R:41
1-5	110-15-6	203-742-5	MALEIC ACID Xn R:22-36/37/38
.	110-16-7	.	
.	.	.	

## 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

None

## **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)

IMIDAZOLE

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

AMMONIUM NITRATE

TLV-TWA = NAV

SUCCINIC ACID

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

MALEIC ACID

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

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  $\geq 0,38$  mm, breakthrough time  $> 480$  min) neoprene (thickness  $\geq 0,65$  mm, breakthrough time  $> 240$  min). butyl rubber (thickness  $\geq 0,36$  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
pH value (25°C)	: 3,80
Density (20°C) Kg/L	: 1,174
Solubility in water (25°C)	: Completely Soluble
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 reducing agents.

## 10.3. Hazardous decomposition products

Formation of CO<sub>2</sub>, CO, NO<sub>x</sub>, NH<sub>3</sub> is possible.

**11. TOXICOLOGICAL INFORMATION**

## Acute toxicity (INGREDIENTS INFORMATION)

## IMIDAZOLE

LD50 (Oral Rat) = 970 mg/kg

## AMMONIUM NITRATE

LD50 (Oral Rat) = 2217 mg/kg

## SUCCINIC ACID

LD50 (Oral Rat) = 2260 mg/kg

## MALEIC ACID

LD50 (Oral Rat) = 708 mg/kg

LD50 (Dermal rabbit) = 1560 mg/kg

LC50 (Inhalation rat) = 720 mg/m<sup>3</sup>

## Eye contact

Irritating to eyes.

**12. ECOLOGICAL INFORMATION**

## 12.1. Ecotoxicity (INGREDIENTS INFORMATION)

## IMIDAZOLE

LC50 (Daphnia, 48h) = 341,5 mg/l

## AMMONIUM NITRATE

LC50 (Fish, 96 hours) = NAv

## SUCCINIC ACID

LC50 (Fish, 96 hours) = NAv

## MALEIC ACID

LC50 (Pimephales promelas, 96h) = 5 mg/l

## 12.2. Mobility

Not available

## 12.3. Persistence and Degradability

Not available

## 12.4. Bioaccumulative potential

Not available

## 12.5. Other adverse effects

**13. DISPOSAL CONSIDERATIONS**

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

EWC: 09 01 05 Bleach solutions and bleach fixer solutions

**14. TRANSPORT INFORMATION**

UN N° : -

PSN :NON HAZARDOUS LIQUID

ADR/RID

Class: NA

Labels :-

Pack. Group:-

Tun.Code :NA                   TREMcard   :NA                   Spec. Prov.:-  
 Pack. Inst.: -                   Lim. Quant.:-

IMDG  
 Class:       NA                   Subs. Risk :NA                   Pack. Group:NA  
 EmS fire:    NA                   EmS Spill. :NA                   IBC. Inst. :-  
 Pack. Inst.: -                   Lim. Quant.:-                   Mar.Poll:N

ICAO/IATA  
 Class:       NA                   Subs. Risk :NA                   Pack. Group:NA  
 Passenger and Cargo Aircraft.   Pkg Inst:NA                   Max Net Qty/Pkg:NA  
 Cargo Aircraft Only               .           Pkg Inst:NA                   Max Net Qty/Pkg:NA  
 Ltd Qty                               .           Pkg Inst:-                   Max Net Qty/Pkg:-

## **15. REGULATORY INFORMATION**

EU Classification and User Label Information:

Contains : -  
 Symbol(s) : Xi  
 R(isk) phrase(s) :  
   R36       : Irritating to eyes.  
 S(afety) phrase(s) :  
   S26       : In case of contact with eyes, rinse immediately with plenty of  
 water and  
                   seek medical advice.

Other information :  
 WGK: 2  
 BAG T n° (CH): 611 484  
 Toxicity class (CH): 4

## **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.

-----  
 Date of issue: 17.01.2006  
 Supersedes edition of: 01.10.2005  
 -----

NAv : Not available    NA : Not applicable

RISK PHRASES MENTIONED IN PARAGRAPH 2:

R22       : Harmful if swallowed.  
 R34       : Causes burns.  
 R36/37/38: Irritating to eyes, respiratory system and skin.  
 R41       : Risk of serious damage to eyes.  
 R8        : Contact with combustible material may cause fire.  
 R9        : Explosive when mixed with combustible material.



According to 1907/2006/EC

# MATERIAL SAFETY DATA SHEET

Catalogue N° : 975029 Printing date : 26/07/2008

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. Identification of the substance or preparation

**FJ CN-16S N3****3,6L**

1.2. Use of the substance/preparation

Photographic fixer

1.3. Company/undertaking identification

FUJIFILM Europe NV

EUROPARK-NOORD 21-22

B-9100 SINT NIKLAAS

TEL : +32 3 760 02 00

FAX : +32 3 776 91 22

FUJIFILM UK Ltd.

St. Martins Way

St. Martins Business Centre

BEDFORD

MK42 OLF

UNITED KINGDOM

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1.4. Emergency telephone

+44 844 553 23 12

## 2. HAZARDS IDENTIFICATION

Most important hazards :

Irritating to eyes and skin.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation: aqueous solution

Components contributing to hazard:

w/w%	CAS N°	EINECS N°	Components
			Symb. R-phrases
3-7	10192-30-0	233-469-7	AMMONIUM HYDROGEN SULFITE C R:31-34
1-5	288-32-4	206-019-2	IMIDAZOLE C R:22-34

## 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

None

## **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)

#### AMMONIUM HYDROGEN SULFITE

MAK ( Deutschland, TRGS 900 ) = NAV  
TLV-TWA = NAV

#### IMIDAZOLE

MAK ( Deutschland, TRGS 900 ) = NAV  
TLV-TWA = NAV

### 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  $\geq 0,38$  mm, breakthrough time  $> 480$  min) neoprene (thickness  $\geq 0,65$  mm, breakthrough time  $> 240$  min). butyl rubber (thickness  $\geq 0,36$  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
pH value (25°C)	: 7,05
Density (20°C) Kg/L	: 1,305
Solubility in water (25°C)	: Completely Soluble
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

None.

## 10.3. Hazardous decomposition products

Formation of CO<sub>2</sub>, CO, NH<sub>3</sub>, NO<sub>x</sub>, H<sub>2</sub>S, SO<sub>2</sub> is possible.

**11. TOXICOLOGICAL INFORMATION**

## Acute toxicity (INGREDIENTS INFORMATION)

## AMMONIUM HYDROGEN SULFITE

LD50 (Oral Rat) = NAv

## IMIDAZOLE

LD50 (Oral Rat) = 970 mg/kg

## Eye contact

Irritating to eyes.

## Skin contact

Irritating to skin.

**12. ECOLOGICAL INFORMATION**

## 12.1. Ecotoxicity (INGREDIENTS INFORMATION)

## AMMONIUM HYDROGEN SULFITE

LC50 (Fish, 96 hours) = NAv

## IMIDAZOLE

LC50 (Daphnia, 48h) = 341,5 mg/l

## 12.2. Mobility

Not available

## 12.3. Persistence and Degradability

Not available

## 12.4. Bioaccumulative potential

Not available

## 12.5. Other adverse effects

**13. DISPOSAL CONSIDERATIONS**

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

EWC: 09 01 04 Fixer solutions

**14. TRANSPORT INFORMATION**

UN N° : -

PSN :NON HAZARDOUS LIQUID

ADR/RID

Class: NA Labels :- Pack. Group:-

Tun.Code :NA TREMcard :NA Spec. Prov.:-

Pack. Inst.: - Lim. Quant.:-

IMDG

Class: NA Subs. Risk :NA Pack. Group:NA

EmS fire: NA EmS Spill. :NA IBC. Inst. :-

Pack. Inst.: - Lim. Quant.:- Mar.Poll:N

ICAO/IATA

Class: NA Subs. Risk :NA Pack. Group:NA

Passenger and Cargo Aircraft. Pkg Inst:NA Max Net Qty/Pkg:NA

Cargo Aircraft Only . Pkg Inst:NA Max Net Qty/Pkg:NA

Ltd Qty . Pkg Inst:- Max Net Qty/Pkg:-

**15. REGULATORY INFORMATION**

EU Classification and User Label Information:

Contains : AMMONIUM HYDROGEN SULFITE

Symbol(s) : Xi

R(isk) phrase(s) :

R36/38 : Irritating to eyes and skin.

S(safety) phrase(s) :

S26 : In case of contact with eyes, rinse immediately with plenty of water and

seek medical advice.

Other information :

WGK: 1

BAG T n° (CH): 611 484

Toxicity class (CH): 4

## **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: 01.10.2005

Supersedes edition of: 01.04.2004  
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NAv : Not available      NA : Not applicable

RISK PHRASES MENTIONED IN PARAGRAPH 2:

R22 : Harmful if swallowed.

R31 : Contact with acids liberates toxic gas.

R34 : Causes burns.



According to 1907/2006/EC

# MATERIAL SAFETY DATA SHEET

Catalogue N° : 990069 Printing date : 26/07/2008

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1. Identification of the substance or preparation

**FJ CN-16S N4****1,9L**

1.2. Use of the substance/preparation

Stabilizer

1.3. Company/undertaking identification

FUJIFILM Europe NV

EUROPARK-NOORD 21-22

B-9100 SINT NIKLAAS

TEL : +32 3 760 02 00

FAX : +32 3 776 91 22

FUJIFILM UK Ltd.

St. Martins Way

St. Martins Business Centre

BEDFORD

MK42 OLF

UNITED KINGDOM

PRODUCTSAFETY@FUJIFILM.EU

1.4. Emergency telephone

+44 844 553 23 12

## 2. HAZARDS IDENTIFICATION

Most important hazards :

May cause sensitization by skin contact.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterisation: aqueous solution

Components contributing to hazard:

w/w%	CAS N°	EINECS N°	Components Symb. R-phrases
0,1-1 .	2634-33-5 .	220-120-9 .	1,2-BENZISOTHIAZOLIN-3-ONE XnN R:22-38-41-43-50

## 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)

1,2-BENZISOTHIAZOLIN-3-ONE

MAK ( Deutschland, TRGS 900 ) = NAV

TLV-TWA = NAV

## 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  $\geq$  0,38 mm, breakthrough time  $>$  480 min) neoprene (thickness  $\geq$  0,65 mm, breakthrough time  $>$  240 min) butyl rubber (thickness  $\geq$  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
pH value (25°C)	: 8,27
Density (20°C) Kg/L	: 1,005
Solubility in water (25°C)	: Completely Soluble
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

None.

## 10.3. Hazardous decomposition products

Formation of CO<sub>2</sub> and CO fumes is possible.

## **11. TOXICOLOGICAL INFORMATION**

Acute toxicity (INGREDIENTS INFORMATION)

1,2-BENZISOTHIAZOLIN-3-ONE

LD50 (Oral Rat) = 1020 mg/kg

LD50 (Dermal rabbit) = > 2000 mg/kg

Skin contact

May cause sensitization by skin contact.

## **12. ECOLOGICAL INFORMATION**

12.1. Ecotoxicity (INGREDIENTS INFORMATION)

1,2-BENZISOTHIAZOLIN-3-ONE

LC50 (Fish, 96 hours) = NAv

LC50 (Daphnia, 48h) = 1,5 mg/l

12.2. Mobility

Not available

12.3. Persistence and Degradability

Not available

12.4. Bioaccumulative potential

Not available

12.5. Other adverse effects

## **13. DISPOSAL CONSIDERATIONS**

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

EWC: 09 01 99 Wastes not otherwise specified

## **14. TRANSPORT INFORMATION**

UN N° : -

PSN :NON HAZARDOUS LIQUID

ADR/RID

Class: NA Labels :- Pack. Group:-

Tun.Code :NA TREMcard :NA Spec. Prov.:-

Pack. Inst.: - Lim. Quant.:-

IMDG

Class: NA Subs. Risk :NA Pack. Group:NA

EmS fire: NA EmS Spill. :NA IBC. Inst. :-

Pack. Inst.: - Lim. Quant.:- Mar.Poll:N

ICAO/IATA

Class: NA Subs. Risk :NA Pack. Group:NA

Passenger and Cargo Aircraft. Pkg Inst:NA Max Net Qty/Pkg:NA

Cargo Aircraft Only . Pkg Inst:NA Max Net Qty/Pkg:NA

Ltd Qty . Pkg Inst:- Max Net Qty/Pkg:-

## **15. REGULATORY INFORMATION**

EU Classification and User Label Information:

Contains : 1,2-BENZISOTHIAZOLIN-3-ONE

Symbol(s) : Xi

R(isk) phrase(s) :

R43 : May cause sensitization by skin contact.

S(afety) phrase(s) :

S24 : Avoid contact with skin.

S37 : Wear suitable gloves.

Other information :

WGK: 1

BAG T n° (CH): 611 463

Toxicity class (CH): 3

## **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: 01.10.2005

Supersedes edition of: 01.04.2004

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NAv : Not available      NA : Not applicable

RISK PHRASES MENTIONED IN PARAGRAPH 2:

R22        :    Harmful if swallowed.  
R38        :    Irritating to skin.  
R41        :    Risk of serious damage to eyes.  
R43        :    May cause sensitization by skin contact.  
R50        :    Very toxic to aquatic organisms.