

# Safety Data Sheet

## according to Regulation (EC) No. 1907/2006 (REACH)

**Trade name :** XR F-6 NDT / XR F-1.5 NDT Fixer concentrate  
**Revision :** 10.03.2016  
**Print date :** 13.03.2016

**Version (Revision) :** 3.0.0 (2.0.0)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

XR F-6 NDT / XR F-1.5 NDT Fixer concentrate

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

##### Relevant identified uses

Special fixer for NDT x-ray film processors.

##### Product Categories [PC]

PC30 - Photo-chemicals

##### Uses advised against

None, if handled according to order.

##### Remark

The product is intended for professional use.

#### 1.3 Details of the supplier of the safety data sheet

##### Supplier (manufacturer/importer/only representative/downstream user/distributor)

orochemie GmbH + Co. KG

**Street :** Max-Planck-Straße 27

**Postal code/city :** 70806 Kornwestheim

**Telephone :** +49 7154 1308-0

**Telefax :** +49 7154 1308-40

**Information contact :** Dürr NDT GmbH & Co KG, Höpfigheimer Straße 22, D-74321 Bietigheim-Bissingen,  
Phone No.: +49 (0) 7142 993810, Telefax No.: +49 (0) 7142 99381 299, info@duerr-ndt.de

#### 1.4 Emergency telephone number

D: +49 30 30686 790 Giftnotruf Berlin / INT: +49 6132 84463 (24 h/7 d)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Although there is no labelling required for this product, we nevertheless advise observation of the safety recommendations.

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

None

##### Classification procedure

The classification was carried out according to the calculation method of Regulation No. (EC) 1272/2008 [CLP].

#### 2.2 Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

##### Precautionary statements

P280 Wear protective gloves and eye/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P353 Rinse skin with water/shower.

##### Special rules for supplemental label elements for certain mixtures

EUH210 Safety data sheet available on request.

#### 2.3 Other hazards

None

### SECTION 3: Composition / information on ingredients

# Safety Data Sheet

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### 3.2 Mixtures

#### Description

XR F-6 NDT / XR F-1.5 NDT Fixer concentrate contains ammonium thiosulfate, organic acids and auxiliary agents in aqueous solution.

#### Hazardous ingredients

ACETIC ACID ; REACH registration No. : 01-2119475328-30 ; EC No. : 200-580-7 ; CAS No. : 64-19-7  
Weight fraction : < 5 %  
Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 Skin Corr. 1A ; H314 Eye Dam. 1 ; H318

#### Additional information

Full text of H- and EUH-phrases: see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

Remove contaminated, saturated clothing immediately. When in doubt or if symptoms are observed, get medical advice.

#### Following inhalation

Provide fresh air. In case of respiratory tract irritation, consult a physician.

#### In case of skin contact

Wash with plenty of water. When in doubt or if symptoms are observed, get medical advice.

#### After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

#### After ingestion

If swallowed, immediately drink: Water Never give anything by mouth to an unconscious person or a person with cramps. Do NOT induce vomiting. Call a physician immediately.

### 4.2 Most important symptoms and effects, both acute and delayed

No information available.

### 4.3 Indication of any immediate medical attention and special treatment needed

None

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>) Extinguishing powder Water spray Water mist The product itself does not burn. Co-ordinate fire-fighting measures to the fire surroundings.

#### Unsuitable extinguishing media

Full water jet

### 5.2 Special hazards arising from the substance or mixture

None known.

#### Hazardous combustion products

None known.

### 5.3 Advice for firefighters

Adapt protective equipment to surrounding fire.

#### Special protective equipment for firefighters

Adapt protective equipment to surrounding fire.

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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protection equipment. See protective measures under point 7 and 8.

##### For non-emergency personnel

Use personal protection equipment. See protective measures under point 7 and 8.

##### For emergency responders

###### Personal protection equipment

See protective measures under point 7 and 8.

#### 6.2 Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

#### 6.3 Methods and material for containment and cleaning up

##### For cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal.

##### Other information

Treat the recovered material as prescribed in the section on waste disposal.

#### 6.4 Reference to other sections

None

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Keep/Store only in original container. Please note safety instructions and directions for use on the drum. Handle and open container with care. Provide adequate ventilation. Do not breathe vapour/aerosol.

##### Protective measures

###### Measures to prevent fire

Usual measures for fire prevention. When using do not smoke.

#### 7.2 Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Keep/Store only in original container. Keep container tightly closed. Keep in a cool, well-ventilated place. Do not store in temperatures below 5 °C.

##### Hints on joint storage

Store the foodstuffs separately.

#### 7.3 Specific end use(s)

None

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Occupational exposure limit values

ACETIC ACID ; CAS No. : 64-19-7

Limit value type (country of origin) : TWA ( EC )

Limit value : 10 ppm / 25 mg/m<sup>3</sup>

Version : 29.05.1991

Limit value type (country of origin) : TLV/TWA ( EC )

Limit value : 10 ppm / 25 mg/m<sup>3</sup>

Version :

Limit value type (country of origin) : TLV/TWA ( GB )

# Safety Data Sheet

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Limit value : 10 ppm / 25 mg/m<sup>3</sup>  
Version :

### DNEL/DMEL and PNEC values

There are no data available on the preparation itself.

#### DNEL/DMEL

Limit value type : DNEL Consumer (local) ( ACETIC ACID ; CAS No. : 64-19-7 )  
Exposure route : Inhalation  
Exposure frequency : Long-term (repeated)  
Limit value : 25 mg/m<sup>3</sup>  
Limit value type : DNEL Consumer (local) ( ACETIC ACID ; CAS No. : 64-19-7 )  
Exposure route : Inhalation  
Exposure frequency : Short-term (acute)  
Limit value : 25 mg/m<sup>3</sup>  
Limit value type : DNEL worker (local) ( ACETIC ACID ; CAS No. : 64-19-7 )  
Exposure route : Inhalation  
Exposure frequency : Long-term (repeated)  
Limit value : 25 mg/m<sup>3</sup>  
Limit value type : DNEL worker (local) ( ACETIC ACID ; CAS No. : 64-19-7 )  
Exposure route : Inhalation  
Exposure frequency : Short-term (acute)  
Limit value : 25 mg/m<sup>3</sup>

#### PNEC

Limit value type : PNEC aquatic, freshwater ( ACETIC ACID ; CAS No. : 64-19-7 )  
Limit value : 3,058 mg/l  
Limit value type : PNEC (Industrial) ( ACETIC ACID ; CAS No. : 64-19-7 )  
Exposure route : Soil  
Limit value : 0,478 mg/kg  
Limit value type : PNEC sediment, freshwater ( ACETIC ACID ; CAS No. : 64-19-7 )  
Limit value : 11,36 mg/kg  
Limit value type : PNEC sediment, marine water ( ACETIC ACID ; CAS No. : 64-19-7 )  
Limit value : 1,136 mg/kg  
Limit value type : PNEC sewage treatment plant (STP) ( ACETIC ACID ; CAS No. : 64-19-7 )  
Limit value : 85 mg/l

## 8.2 Exposure controls

### Personal protection equipment

#### Eye/face protection

Eye glasses with side protection DIN EN 166

#### Skin protection

##### Hand protection

Short-term exposure (Level 2: < 30 min): disposable gloves to EN374 category III, e.g. nitrile rubber, material thickness 0.1 mm.

Long-term exposure (Level 6: < 480 min): protective gloves to EN374 category III, e.g. nitrile rubber, material thickness 0.7 mm.

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits.

##### Body protection

Body protection: not required.

#### Respiratory protection

Usually no personal respiratory protection necessary.

### General health and safety measures

Keep away from food, drink and animal feedingstuffs. Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing. Wash hands before breaks and after work. Separate storage of work clothes. When using do not eat, drink, smoke, sniff.

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### Occupational exposure controls

#### Technical measures to prevent exposure

Provide adequate ventilation.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Appearance :** liquid

**Colour :** light yellow

**Odour :** Acetic acid

#### Safety relevant basis data

<b>Melting point/melting range :</b>	( 1013 hPa )			No data available
<b>Initial boiling point and boiling range :</b>	( 1013 hPa )	ca.	100	°C
<b>Decomposition temperature :</b>	( 1013 hPa )			No data available
<b>Flash point :</b>				not applicable
<b>Ignition temperature :</b>				not applicable
<b>Lower explosion limit :</b>				not applicable
<b>Upper explosion limit :</b>				not applicable
<b>Vapour pressure :</b>	( 50 °C )			No data available
<b>Density :</b>	( 20 °C )		1,2 - 1,4	g/cm <sup>3</sup>
<b>Solvent separation test :</b>	( 20 °C )	<	3	%
<b>Water solubility :</b>	( 20 °C )		100	Wt %
<b>pH value :</b>			4,6 - 5	
<b>Flow time :</b>	( 20 °C )	<	20	s
<b>Odour threshold :</b>				No data available
<b>Maximum VOC content (EC) :</b>			5	Wt %
<b>Oxidising liquids :</b>				Not applicable.
<b>Explosive properties :</b>				Not applicable.
<b>Corrosive to metals :</b>				Not corrosive to metals.

### 9.2 Other information

None

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

None, if handled according to order.

### 10.2 Chemical stability

Stable under recommended storage and handling conditions (see section 7). Exothermic reaction with alkalis.

### 10.3 Possibility of hazardous reactions

Exothermic reaction with alkalis.

### 10.4 Conditions to avoid

No information available.

### 10.5 Incompatible materials

No information available.

### 10.6 Hazardous decomposition products

None known.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

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There are no data available on the mixture itself.

### Acute effects

#### Acute oral toxicity

Parameter : LD50 ( ACETIC ACID ; CAS No. : 64-19-7 )  
Exposure route : Oral  
Species : Rat  
Effective dose : 3310 mg/kg

#### Practical experience/human evidence

Avoid contact with skin and eyes.

#### Acute dermal toxicity

Parameter : LD50 ( ACETIC ACID ; CAS No. : 64-19-7 )  
Exposure route : Dermal  
Species : Rabbit  
Effective dose : 1060 mg/kg

#### Acute inhalation toxicity

Parameter : LC50 ( ACETIC ACID ; CAS No. : 64-19-7 )  
Exposure route : Inhalation  
Species : Mouse  
Effective dose : 5620 mg/l  
Parameter : LD50 ( ACETIC ACID ; CAS No. : 64-19-7 )  
Exposure route : Inhalation  
Species : Rat  
Effective dose : 4000 mg/l

### Irritant and corrosive effects

No data available.

### Sensitisation

No data available.

### CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

No information available.

### 11.5 Additional information

The classification was carried out according to the calculation method of Regulation No. (EC) 1272/2008 [CLP].

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity

There are no data available on the preparation itself.

#### Acute (short-term) fish toxicity

Parameter : LC50 ( ACETIC ACID ; CAS No. : 64-19-7 )  
Species : Leuciscus idus (golden orfe)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : 400 - 500 mg/l  
Exposure time : 48 h  
Parameter : LC50 ( ACETIC ACID ; CAS No. : 64-19-7 )  
Species : Lepomis macrochirus (Bluegill)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : 75 mg/l  
Exposure time : 96 h  
Parameter : LC50 ( ACETIC ACID ; CAS No. : 64-19-7 )  
Species : Pimephales promelas (fathead minnow)  
Evaluation parameter : Acute (short-term) fish toxicity  
Effective dose : 79 mg/l  
Exposure time : 96 h

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### Acute (short-term) daphnia toxicity

Parameter : EC50 ( ACETIC ACID ; CAS No. : 64-19-7 )  
Species : Daphnia magna (Big water flea)  
Evaluation parameter : Acute (short-term) daphnia toxicity  
Effective dose : 95 mg/l  
Exposure time : 24 h

### Acute (short-term) algae toxicity

Parameter : EC0 ( ACETIC ACID ; CAS No. : 64-19-7 )  
Evaluation parameter : Acute (short-term) algae toxicity  
Effective dose : 65 mg/l  
Exposure time : 85 h

### Bacteria toxicity

Parameter : EC0 ( ACETIC ACID ; CAS No. : 64-19-7 )  
Species : Pseudomonas putida  
Evaluation parameter : Bacteria toxicity  
Effective dose : 2850 mg/l  
Exposure time : 16 h

## 12.2 Persistence and degradability

### Biodegradation

No data available.

## 12.3 Bioaccumulative potential

No information available.

## 12.4 Mobility in soil

### Known or predicted distribution to environmental compartments

There are no data available on the preparation itself.

### Adsorption/Desorption

## 12.5 Results of PBT and vPvB assessment

No information available.

## 12.6 Other adverse effects

No information available.

## 12.7 Additional ecotoxicological information

Do not allow to enter into surface water or drains.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product/Packaging disposal

##### Waste codes/waste designations according to EWC/AVV

##### Waste code product

Concentrate/larger quantities: 09 01 04\* fixer solutions.

##### Waste treatment options

##### Appropriate disposal / Product

Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

##### Appropriate disposal / Package

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

## SECTION 14: Transport information

### 14.1 UN number

No dangerous goods in sense of this transport regulation.

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### 14.2 UN proper shipping name

No dangerous goods in sense of this transport regulation.

### 14.3 Transport hazard class(es)

No dangerous goods in sense of this transport regulation.

### 14.4 Packing group

No dangerous goods in sense of this transport regulation.

### 14.5 Environmental hazards

No dangerous goods in sense of this transport regulation.

### 14.6 Special precautions for user

None

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### National regulations

#### Restrictions of occupation

None

### 15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment has not been carried out.

## SECTION 16: Other information

### 16.1 Indication of changes

02. Classification of the substance or mixture · 02. Label elements · 03. Hazardous ingredients

### 16.2 Abbreviations and acronyms

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimates

CAS = Chemical Abstracts Service

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CMR = Carcinogen, Mutagen or Reproductive toxicant

CO<sub>2</sub> = Carbon dioxide

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EC = European Commission

EC50 = Half maximal effective concentration

EN = European Standard (Norm)

EU = European Union

EUH statement = CLP-specific Hazard statement

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

H statement = GHS Hazard statement

IATA = International Air Transport Association ICAO-TI = International Civil Aviation Organization-Technical Instructions

IMDG = International Maritime Dangerous Goods

LC50 = Median lethal concentration

LD50 = Median lethal dose

LogPow = Logarithm of the octanol/water partition coefficient

MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

NOEC/NOEL = No observed effect concentration/level

OECD = Organisation for Economic Co-operation and Development



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PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RMM = Risk Management Measure  
RRN = REACH Registration Number  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
SVHC = Substances of Very High Concern  
TLV/STEL = Threshold limit value/short-term exposure limit  
TLV/TWA = Threshold limit value/time weighted average  
UN = United Nations  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative

### 16.3 Key literature references and sources for data

None

### 16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]

No information available.

### 16.5 Relevant H- and EUH-phrases (Number and full text)

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

### 16.6 Training advice

None

### 16.7 Additional information

Notice the directions for use on the label.

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The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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