

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 date : 03.08.2023
Print date : 14.08.2023

Version (Revision) : 4.1.0 (4.0.0)

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
Unique Formula Identifier : not applicable

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.

Products Category [PC]

PC 30 - 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

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

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 [or shower].

Special rules for supplemental label elements for certain mixtures

EUH210 Safety data sheet available on request.

2.3 Other hazards

The mixture does not contain any substances that have endocrine disrupting properties. The classification was carried out according to the calculation method of Regulation No. (EC) 1272/2008 [CLP] as well as in-house investigations.

SECTION 3: Composition/information on ingredients

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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 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 Met. Corr. 1 ; H290 Skin Corr. 1A ; H314 Eye Dam. 1 ; H318

Specific Conc. Limits : Skin Corr. 1A ; H314: C ≥ 90 % • Eye Dam. 1 ; H318: C ≥ 25 % • Skin Corr. 1B ; H314: C ≥ 25 % • Skin Corr. 1C ; H314: C ≥ 25 % • Eye Irrit. 2 ; H319: C ≥ 10 % • Skin Irrit. 2 ; H315: C ≥ 10 %

Additional information

For full text of Hazard- and EU Hazard-statements: 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.

Following 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 (CO₂) Extinguishing powder Water spray jet 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.

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Special protective equipment for firefighters

Adapt protective equipment to surrounding fire.

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 (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)

Observe instructions for use.

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) : STEL (EC)

Limit value : 20 ppm / 50 mg/m³

Version : 20.06.2019

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

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Limit value : 50 mg/m³ / 20 ppm
Limit value type (country of origin) : TWA (EC)
Limit value : 10 ppm / 25 mg/m³
Version : 20.06.2019
Limit value type (country of origin) : TWA (EC)
Limit value : 25 mg/m³ / 10 ppm
Limit value type (country of origin) : TLV/TWA (GB)
Limit value : 10 ppm / 25 mg/m³

DNEL-/PNEC-values

There are no data available on the preparation itself.

DNEL/DMEL

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

Limit value type : DNEL Consumer (local)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 25 mg/m³
Limit value type : DNEL Consumer (local)
Exposure route : Inhalation
Exposure frequency : Short-term
Limit value : 25 mg/m³
Limit value type : DNEL worker (local)
Exposure route : Inhalation
Exposure frequency : Long-term
Limit value : 25 mg/m³
Limit value type : DNEL worker (local)
Exposure route : Inhalation
Exposure frequency : Short-term
Limit value : 25 mg/m³

PNEC

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

Limit value type : PNEC (Aquatic, freshwater)
Limit value : 3,058 mg/l
Limit value type : PNEC (Aquatic, marine water)
Limit value : 0,3058 mg/l
Limit value type : PNEC (Industrial)
Exposure route : Soil
Limit value : 0,478 mg/kg
Limit value type : PNEC (Sediment, freshwater)
Limit value : 11,36 mg/kg
Limit value type : PNEC (Sediment, marine water)
Limit value : 1,136 mg/kg
Limit value type : PNEC (Sewage treatment plant)
Limit value : 85 mg/l

8.2 Exposure controls

Personal protection equipment

Eye/face protection

Eye glasses with side protection 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.

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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 information

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.

Other protection measures

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 characteristics

| | | | | | |
|--------------------------------------------------|--------------------------|---------|-----------|-------------------|----------------|
| Melting point/freezing point : | (1013 hPa) | | | | not determined |
| Initial boiling point and boiling range : | (1013 hPa) | approx. | 100 | °C | |
| Decomposition temperature : | (1013 hPa) | | | | not determined |
| Flash point : | | | | | not applicable |
| Auto-ignition temperature : | | | | | not applicable |
| Lower explosion limit : | | | | | not applicable |
| Upper explosion limit : | | | | | not applicable |
| Vapour pressure : | (50 °C) | | | | not determined |
| Density : | (20 °C) | approx. | 1,3 | g/cm ³ | |
| Solvent separation test : | (20 °C) | < | 3 | % | |
| Water solubility : | (20 °C) | | 100 | Weight-% | |
| pH value : | | | 4,5 - 5,5 | | |
| log P O/W : | | | | | not determined |
| Flow time : | (20 °C) | < | 20 | s | DIN-cup 4 mm |
| Odour threshold : | | | | | not determined |
| Maximum VOC content (EC) : | | | 5 | Weight-% | |
| Oxidising liquids : | Not applicable. | | | | |
| Explosive properties : | Not applicable. | | | | |
| Corrosive to metals : | 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

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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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Based on available data, the classification criteria are not met.

Acute oral toxicity

Parameter : ATEmix
Exposure route : Oral
Effective dose : not relevant
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 : ATEmix
Exposure route : Dermal
Effective dose : not relevant
Parameter : LD50 (ACETIC ACID ; CAS No. : 64-19-7)
Exposure route : Dermal
Species : Rabbit
Effective dose : 1060 mg/kg

Acute inhalation toxicity

Parameter : ATEmix
Exposure route : Inhalation (vapour)
Effective dose : not relevant
Parameter : LC50 (ACETIC ACID ; CAS No. : 64-19-7)
Exposure route : Inhalation
Species : Mouse
Effective dose : 5620 mg/l

Corrosion

Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

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Aspiration hazard

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties

The mixture does not contain any substances that have endocrine disrupting properties.

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

Based on available data, the classification criteria are not met.

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

Acute (short-term) toxicity to crustacea

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) toxicity to algae and cyanobacteria

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

Toxicity to microorganisms

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

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Distribution

There are no data available on the preparation itself.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

The mixture does not contain any substances that have endocrine disrupting properties.

12.7 Other adverse effects

No information available.

12.8 Additional ecotoxicological information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

After intended use

Disposal operations

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

Recovery operations

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

Waste codes/waste designations according to EWC/AVV

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

SECTION 14: Transport information

14.1 UN number

No dangerous good in sense of these transport regulations.

14.2 UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3 Transport hazard class(es)

No dangerous good in sense of these transport regulations.

14.4 Packing group

No dangerous good in sense of these transport regulations.

14.5 Environmental hazards

No dangerous good in sense of these transport regulations.

14.6 Special precautions for user

None

14.7 Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EU legislation

Authorisations and/or restrictions on use

Restrictions on use

Regulation (EC) No. 1907/2006 (REACH), Annex XVII (restrictions)

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Use restriction according to REACH annex XVII, no. : 40, 75

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. Label elements · 15. Restrictions on use

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

CO₂ = 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

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) No 1272/2008 [CLP]

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

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

| | |
|------|------------------------------------------|
| H226 | Flammable liquid and vapour. |
| H290 | May be corrosive to metals. |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |

16.6 Training advice

None

16.7 Additional information

Follow the instructions for use on the label.

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.
