

**Safety data sheet**

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

Printing date 02.02.2017

Version number 3

Revision: 31.01.2017

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****• 1.1 Product identifier**

- Trade name: ES/F
- Article number: 120160

- Description: Fluoride standard solution 10 g/l F<sup>-</sup> (NaF)

**• 1.2 Relevant identified uses of the substance or mixture and uses advised against:**

- Product category: PC21 Laboratory chemicals
- Process category: PROC15 Use as laboratory reagent
- Application of the substance / the preparation: Calibration solution

**• 1.3 Details of the supplier of the safety data sheet**

- Manufacturer/Supplier:

Xylem Analytics Germany GmbH  
 Dr.-Karl-Slevogt-Str. 1  
 82362 Weilheim  
 Germany

Contact: SI Analytics, Mainz  
 Tel. +49.(0)6131.66.5111

- Further information obtainable from: E-Mail: msds.si@xyleminc.com

- **1.4 Emergency telephone number:** Chemtrec: (USA & Canada) 800-424-9300 (International) 001 703-527-3887

**SECTION 2: Hazards identification****• 2.1 Classification of the substance or mixture**

- Classification according to Regulation (EC) No 1272/2008:  
 The product is not classified according to the CLP regulation.

**• 2.2 Label elements:**

- 2.2.1 Labelling according to Regulation (EC) No 1272/2008: Void
- Hazard pictograms: Void
- Signal word: Void
- Hazard statements: Void
- Additional information:  
 EUH210 Safety data sheet available on request.
- **2.3 Other hazards** No further relevant information available.

**SECTION 3: Composition/information on ingredients****• 3.2 Mixture**

- Description:  
 Mixture, consisting of the following components:  
 Water, sodium fluoride

- Dangerous components:

|                            |                                                                 |      |
|----------------------------|-----------------------------------------------------------------|------|
| CAS: 7681-49-4             | sodium fluoride                                                 | 1-5% |
| EINECS: 231-667-8          | ☠ Acute Tox. 3, H301; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319 |      |
| Index number: 009-004-00-7 |                                                                 |      |

- Additional information: For the wording of the listed hazard phrases refer to section 16.

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## SECTION 4: First aid measures

### • 4.1 Description of first aid measures

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact:  
Wash with plenty of water.  
Take off immediately all contaminated clothing and wash it before reuse.  
If skin irritation or rash occurs: Get medical advice/attention.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing:  
Rinse out mouth and then drink plenty of water.  
Seek immediate medical advice.

• 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

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

No further relevant information available.

## SECTION 5: Firefighting measures

### • 5.1 Extinguishing media

- Suitable extinguishing agents: The product is not flammable. Extinguishing agent to suit environment.

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

In case of fire, the following can be released:

Hydrogen fluoride (HF)

### • 5.3 Advice for firefighters

- Protective equipment: Wear self-contained respiratory protective device.

## SECTION 6: Accidental release measures

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

Avoid contact with skin and eyes.

Avoid the generation of fog or aerosols.

### • 6.2 Environmental precautions: No special measures required.

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

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Wash off residuals with water.

### • 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## SECTION 7: Handling and storage

### • 7.1 Precautions for safe handling No special precautions are necessary if used correctly.

- Information about fire - and explosion protection: No special measures required.

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

- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Store tightly sealed at temperatures between 15 °C and 25 °C.
- 7.3 Specific end use(s) No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.

### • 8.1 Control parameters

- Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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- Additional information: The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- Personal protective equipment:
- General protective and hygienic measures:
  - Avoid contact with the eyes and skin.
  - Do not inhale gases / fumes / aerosols.
  - Take off contaminated clothing and wash it before reuse.
  - Wash hands before breaks and at the end of work.
- Respiratory protection: Use suitable respiratory protective device only when aerosol or mist is formed.
- Recommended filter device for short term use: Combination filter B-P2
- Protection of hands: Protective gloves
- Material of gloves Nitrile rubber, NBR
- Eye protection: Safety glasses

## SECTION 9: Physical and chemical properties

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |       |       |         |            |        |           |                               |               |                                          |        |          |                 |            |                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------|-------|---------|------------|--------|-----------|-------------------------------|---------------|------------------------------------------|--------|----------|-----------------|------------|-----------------|
| <b>• 9.1 Information on basic physical and chemical properties</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                 |       |       |         |            |        |           |                               |               |                                          |        |          |                 |            |                 |
| <ul style="list-style-type: none"> <li>• General Information</li> <li>• Appearance:               <table> <tr> <td>Form:</td><td>Fluid</td></tr> <tr> <td>Colour:</td><td>Colourless</td></tr> <tr> <td>Odour:</td><td>Odourless</td></tr> </table> </li> <li>• pH-value at 20 °C: 6,4</li> <li>• Change in condition               <table> <tr> <td>Melting point/freezing point:</td><td>Undetermined.</td></tr> <tr> <td>Initial boiling point and boiling range:</td><td>100 °C</td></tr> </table> </li> <li>• Flash point: Not applicable.</li> <li>• Explosive properties: Product does not present an explosion hazard.</li> <li>• Vapour pressure at 20 °C: 23 hPa</li> <li>• Density: Not determined.</li> <li>• Solubility in / Miscibility with water: Fully miscible.</li> <li>• Viscosity:               <table> <tr> <td>Dynamic:</td><td>Not determined.</td></tr> <tr> <td>Kinematic:</td><td>Not determined.</td></tr> </table> </li> <li>• <b>9.2 Other information</b> No further relevant information available.</li> </ul> |                 | Form: | Fluid | Colour: | Colourless | Odour: | Odourless | Melting point/freezing point: | Undetermined. | Initial boiling point and boiling range: | 100 °C | Dynamic: | Not determined. | Kinematic: | Not determined. |
| Form:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Fluid           |       |       |         |            |        |           |                               |               |                                          |        |          |                 |            |                 |
| Colour:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Colourless      |       |       |         |            |        |           |                               |               |                                          |        |          |                 |            |                 |
| Odour:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Odourless       |       |       |         |            |        |           |                               |               |                                          |        |          |                 |            |                 |
| Melting point/freezing point:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Undetermined.   |       |       |         |            |        |           |                               |               |                                          |        |          |                 |            |                 |
| Initial boiling point and boiling range:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 100 °C          |       |       |         |            |        |           |                               |               |                                          |        |          |                 |            |                 |
| Dynamic:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Not determined. |       |       |         |            |        |           |                               |               |                                          |        |          |                 |            |                 |
| Kinematic:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Not determined. |       |       |         |            |        |           |                               |               |                                          |        |          |                 |            |                 |

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** In case of fire, see section 5.

## SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- Acute toxicity Based on available data, the classification criteria are not met.

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- LD/LC50 values relevant for classification:

**7681-49-4 sodium fluoride**

|      |      |                |
|------|------|----------------|
| Oral | LD50 | 52 mg/kg (Rat) |
|------|------|----------------|

- Primary irritant effect:
- Skin corrosion/irritation Local irritation possible.
- Serious eye damage/irritation Irritation and injury possible, if not adequately treated.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity 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.
- Aspiration hazard Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

- **12.1 Toxicity**
- Aquatic toxicity: No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- Additional ecological information:
- General notes: Generally not hazardous for water
- **12.5 Results of PBT and vPvB assessment** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- Recommendation  
Disposal must comply with the relevant local regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose the special waste.
- Uncleaned packaging:
- Recommendation:  
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.  
Packagings that may not be cleansed are to be disposed of in the same manner as the product.
- Recommended cleansing agents: Water, if necessary together with cleansing agents.

## SECTION 14: Transport information

- |                                          |                 |
|------------------------------------------|-----------------|
| • <b>14.1 UN-Number</b>                  |                 |
| • ADR/RID, ADN, IMDG, IATA               | Void            |
| • <b>14.2 UN proper shipping name</b>    |                 |
| • ADR/RID, ADN, IMDG, IATA               | Void            |
| • <b>14.3 Transport hazard class(es)</b> |                 |
| • ADR/RID, ADN, IMDG, IATA               |                 |
| • Class                                  | Void            |
| • <b>14.4 Packing group</b>              |                 |
| • ADR/RID, IMDG, IATA                    | Void            |
| • <b>14.5 Environmental hazards:</b>     | Not applicable. |

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|                                                                                  |                 |
|----------------------------------------------------------------------------------|-----------------|
| • <b>14.6 Special precautions for user</b>                                       | Not applicable. |
| • <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b> | Not applicable. |
| • UN "Model Regulation":                                                         | Void            |

## SECTION 15: Regulatory information

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

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

- Relevant phrases  
H301 Toxic if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.
- Abbreviations and acronyms:  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organisation  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Acute Tox. 3: Acute toxicity – Category 3  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

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