

## 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: L 4619
- Article number: 285138373
- Description: Redox test solution (+180 mV/+220 mV) according to DIN
- Product code: scho0034

#### • 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: Test 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@xylem-inc.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
- **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, potassium hexacyanoferrate(II) and (III), disodium hydrogenphosphate, potassium dihydrogenphosphate
- Dangerous components: Void
- Additional information: For the wording of the listed hazard phrases refer to section 16.

### \* SECTION 4: First aid measures

#### • 4.1 Description of first aid measures

- After inhalation: Supply fresh air.
- After skin contact:  
Wash with plenty of water.  
Take off contaminated clothing.

(Contd. on page 2)

# Safety data sheet

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Trade name: L 4619

(Contd. of page 1)

- If skin irritation continues, consult a doctor.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Seek immediate medical advice.
- **4.2 Most important symptoms and effects, both acute and delayed**
  - Gastric or intestinal disorders
  - Vomiting
  - Dizziness
  - Breathing difficulty
  - Cyanosis
- **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:
  - Nitrogen oxides (NO<sub>x</sub>)
  - Hydrogen cyanide (HCN)
- **5.3 Advice for firefighters**
  - Protective equipment: Wear self-contained respiratory protective device.
  - Additional information
  - Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

## SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
  - No special measurements required when handled properly.
- **6.2 Environmental precautions:**
  - Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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: Store only in the original receptacle.
  - Information about storage in one common storage facility: Do not store together with acids.
  - Further information about storage conditions:
    - Store receptacle in a well ventilated area.
    - Protect from exposure to the light.
- **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.

(Contd. on page 3)

# Safety data sheet

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Revision: 31.01.2017

Trade name: L 4619

(Contd. of page 2)

- 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.
  - Take off contaminated clothing and wash it before reuse.
  - Wash hands before breaks and at the end of work.
- Respiratory protection: Not required.
- Protection of hands: Protective gloves recommended for frequent or long-term skin contact.
- Material of gloves
  - Recommended thickness of the material:  $\geq 0,35$  mm
  - Nitrile rubber, NBR
- Eye protection: Safety glasses
- Body protection: Light weight protective clothing

## SECTION 9: Physical and chemical properties

|                                                                    |                                               |
|--------------------------------------------------------------------|-----------------------------------------------|
| • <b>9.1 Information on basic physical and chemical properties</b> |                                               |
| • General Information                                              |                                               |
| • Appearance:                                                      |                                               |
| Form:                                                              | Fluid                                         |
| Colour:                                                            | Light yellow                                  |
| • Odour:                                                           | Odourless                                     |
| • pH-value at 20 °C:                                               | 7                                             |
| • Change in condition                                              |                                               |
| Melting point/freezing point:                                      | Undetermined.                                 |
| Initial boiling point and boiling range:                           | 100 °C                                        |
| • Flash point:                                                     | Not applicable.                               |
| • Explosive properties:                                            | Product does not present an explosion hazard. |
| • Vapour pressure at 20 °C:                                        | 23 hPa                                        |
| • Density at 20 °C:                                                | 1,01 g/cm <sup>3</sup>                        |
| • Solubility in / Miscibility with water:                          | Fully miscible.                               |
| • Viscosity:                                                       |                                               |
| Dynamic:                                                           | Not determined.                               |
| Kinematic:                                                         | Not determined.                               |
| • <b>9.2 Other information</b>                                     | No further relevant information available.    |

## \* SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- Thermal decomposition / conditions to be avoided: The product is sensitive to light.
- **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.

(Contd. on page 4)

# Safety data sheet

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Trade name: L 4619

(Contd. of page 3)

- Primary irritant effect:
- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation 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)
- 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:  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **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  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

|                            |                                                                                  |
|----------------------------|----------------------------------------------------------------------------------|
| • European waste catalogue |                                                                                  |
| 16 00 00                   | WASTES NOT OTHERWISE SPECIFIED IN THE LIST                                       |
| 16 05 00                   | gases in pressure containers and discarded chemicals                             |
| 16 05 09                   | discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08 |

- Uncleaned packaging:
- Recommendation: Empty ampoules can be treated like household refuse.

## 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>     |      |
| • Marine pollutant:                      | No   |

(Contd. on page 5)

# Safety data sheet

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(Contd. of page 4)

|                                                                                  |                 |
|----------------------------------------------------------------------------------|-----------------|
| • <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

### • 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)  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative

- \* Data compared to the previous version altered.

— EU —