

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**1995-32 Molybdate 3 Reagent for Silica**

Revision date: 02.02.2017

Product code: 199532

Page 1 of 8

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

1995-32 Molybdate 3 Reagent for Silica

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Water analysis

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

Company name: HACH LANGE GmbH  
Street: Willstätterstr. 11  
Place: D-40549 Düsseldorf  
Telephone: +49 (0)211 5288-383  
e-mail: SDS@hach.com  
Internet: www.de.hach.com  
Responsible Department: HACH LANGE Ltd.  
5, Pacific Way  
Salford Manchester M50 1DL - United Kingdom  
Tel. +44 (0) 161 872 1487 \* Fax +44 (0) 161 848 7324  
e-Mail: info-uk@hach.com

HACH LANGE Ltd.  
Unit 1, Chestnut Road Western Industrial Estate  
IRL-Dublin 12  
Tel. +353 (0)1 4602522  
e-Mail: info-ie@hach.com

**1.4. Emergency telephone number:**

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Substance or mixture corrosive to metals: Met. Corr. 1

Skin corrosion/irritation: Skin Corr. 1

Specific target organ toxicity - repeated exposure: STOT RE 1

Hazard Statements:

May be corrosive to metals.

Causes severe skin burns and eye damage.

Causes damage to organs through prolonged or repeated exposure.

**2.2. Label elements****Regulation (EC) No. 1272/2008****Hazard components for labelling**

sulphuric acid ... %

sodium hydrogensulphate

Molybdic acid

**Signal word:**

Danger

**Pictograms:**

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## 1995-32 Molybdate 3 Reagent for Silica

Revision date: 02.02.2017

Product code: 199532

Page 2 of 8

### Hazard statements

- H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.  
H372 Causes damage to organs through prolonged or repeated exposure.

### Precautionary statements

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P270 Do not eat, drink or smoke when using this product.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P310 Immediately call a POISON CENTER/doctor.

### Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

### 2.3. Other hazards

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous components

| CAS No     | Chemical name                                                   |              |          | Quantity |
|------------|-----------------------------------------------------------------|--------------|----------|----------|
|            | EC No                                                           | Index No     | REACH No |          |
|            | Classification according to Regulation (EC) No. 1272/2008 [CLP] |              |          |          |
| 7732-18-5  | Water                                                           |              |          | > 60 %   |
|            | 231-791-2                                                       |              |          |          |
| 7664-93-9  | sulphuric acid ... %                                            |              |          | < 15 %   |
|            | 231-639-5                                                       | 016-020-00-8 |          |          |
|            | Skin Corr. 1A; H314                                             |              |          |          |
| 10034-88-5 | sodium hydrogensulphate                                         |              |          | < 20 %   |
|            | 231-665-7                                                       | 016-046-00-X |          |          |
|            | Eye Dam. 1; H318                                                |              |          |          |
| 7782-91-4  | Molybdic acid                                                   |              |          | < 15 %   |
|            | 231-970-5                                                       |              |          |          |
|            | Eye Irrit. 2, STOT SE 3, STOT RE 1; H319 H335 H372              |              |          |          |

Full text of H and EUH statements: see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Take off contaminated clothing and shoes immediately. Show this safety data sheet to the doctor in attendance.

#### After inhalation

Move to fresh air. Consult a physician.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**1995-32 Molybdate 3 Reagent for Silica**

Revision date: 02.02.2017

Product code: 199532

Page 3 of 8

**After contact with skin**

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

**After contact with eyes**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**After ingestion**

Drink 1 or 2 glasses of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

**4.2. Most important symptoms and effects, both acute and delayed**

Irritation and corrosion

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Water, Carbon dioxide (CO<sub>2</sub>), Dry chemical

**Unsuitable extinguishing media**

No Limit

**5.2. Special hazards arising from the substance or mixture**

Hazardous decomposition products formed under fire conditions.

**5.3. Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

**Additional information**

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment.

**6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system.

**6.3. Methods and material for containment and cleaning up**

Soak up with inert absorbent material and dispose of as hazardous waste.

**6.4. Reference to other sections**

13. Disposal considerations

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Avoid contact with skin and eyes. Avoid contact with clothing. Do not breathe vapours/dust. Provide sufficient air exchange and/or exhaust in work rooms.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep at temperatures between 10 and 25 °C.

**Hints on joint storage**

Do not store together with Oxidizing agents, Solvent

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**1995-32 Molybdate 3 Reagent for Silica**

Revision date: 02.02.2017

Product code: 199532

Page 4 of 8

**7.3. Specific end use(s)**

Reagent for analysis

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure limits (EH40)**

| CAS No    | Substance             | ppm | mg/m <sup>3</sup> | fibres/ml | Category  | Origin |
|-----------|-----------------------|-----|-------------------|-----------|-----------|--------|
| 7664-93-9 | Sulphuric acid (mist) | -   | 0.05              |           | TWA (8 h) | WEL    |

**Additional advice on limit values**

None known.

**8.2. Exposure controls****Appropriate engineering controls**

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Protective and hygiene measures**

Wash hands before breaks and at the end of workday.

**Eye/face protection**

Safety glasses with side-shields

**Hand protection**

Use barrier skin cream.

Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374. In full contact:

Gloves material: Viton, Layer thickness: 0.70 mm, Breakthrough time: >480 min. In splash contact: Glove material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: > 30 min

**Skin protection**

Avoid contact with skin, eyes and clothing.

**Respiratory protection**

Ensure adequate ventilation, especially in confined areas.

**Environmental exposure controls**

Do not flush into surface water or sanitary sewer system.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

|                      |                          |
|----------------------|--------------------------|
| Physical state:      | liquid                   |
| Colour:              | colourless, light yellow |
| Odour:               | none                     |
| pH-Value (at 20 °C): | < 0,5                    |

**Changes in the physical state**

|                                          |                |
|------------------------------------------|----------------|
| Melting point:                           | not applicable |
| Initial boiling point and boiling range: | 100 °C         |
| Sublimation point:                       | not applicable |
| Softening point:                         | not applicable |
| Pour point:                              | not applicable |
| Flash point:                             | > 100 °C       |

**Flammability**

|        |                |
|--------|----------------|
| Solid: | not applicable |
|--------|----------------|

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**1995-32 Molybdate 3 Reagent for Silica**

Revision date: 02.02.2017

Product code: 199532

Page 5 of 8

Gas: not applicable

**Explosive properties**

not applicable

Lower explosion limits:

not applicable

Upper explosion limits:

not applicable

Ignition temperature:

not applicable

**Auto-ignition temperature**

Solid:

not applicable

Gas:

not applicable

Decomposition temperature:

not applicable

**Oxidizing properties**

not applicable

Vapour pressure:

no data available

Vapour pressure:

no data available

Density (at 20 °C):

1,2 - 1,3 g/cm<sup>3</sup>

Bulk density:

no data available

Water solubility:

soluble

(at 20 °C)

**Solubility in other solvents**

Acids

Partition coefficient:

no data available

Viscosity / dynamic:

no data available

Viscosity / kinematic:

no data available

Flow time:

no data available

Vapour density:

no data available

Evaporation rate:

no data available

Solvent separation test:

no data available

Solvent content:

no data available

**9.2. Other information**

Solid content:

not applicable

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Corrosive to metals

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

Hazardous polymerisation does not occur.

**10.4. Conditions to avoid**

To avoid thermal decomposition, do not overheat.

**10.5. Incompatible materials**

Incompatible with strong bases and oxidizing agents.

**10.6. Hazardous decomposition products**

Sulphur oxides

## 1995-32 Molybdate 3 Reagent for Silica

Revision date: 02.02.2017

Product code: 199532

Page 6 of 8

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Toxicokinetics, metabolism and distribution

Angaben zur Toxikologie liegen nicht vor.

##### Acute toxicity

No data is available on the product itself.

| CAS No     | Chemical name           |                 |         |        |        |  |
|------------|-------------------------|-----------------|---------|--------|--------|--|
|            | Exposure route          | Dose            | Species | Source | Method |  |
| 10034-88-5 | sodium hydrogensulphate |                 |         |        |        |  |
|            | oral                    | LD50 2490 mg/kg | rat     | IUCLID |        |  |

##### Irritation and corrosivity

Causes skin and eye burns.

##### Sensitising effects

No known effect.

##### Carcinogenic/mutagenic/toxic effects for reproduction

Contains no ingredient listed as a carcinogen

##### STOT-single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

##### STOT-repeated exposure

H372 - Causes damage to organs through prolonged or repeated exposure.

##### Aspiration hazard

No aspiration toxicity classification

##### Specific effects in experiment on an animal

sulphuric acid ... %: LD50/oral/rat = 2140mg/kg; LC50/inhalation/1h/mouse = 347ppm

sodium hydrogensulphate: LD50/oral/rat = 2828mg/kg

##### Further information

Handle in accordance with good industrial hygiene and safety practice.

### SECTION 12: Ecological information

#### 12.1. Toxicity

No data is available on the product itself.

| CAS No     | Chemical name            |               |           |                            |        |        |
|------------|--------------------------|---------------|-----------|----------------------------|--------|--------|
|            | Aquatic toxicity         | Dose          | [h]   [d] | Species                    | Source | Method |
| 10034-88-5 | sodium hydrogensulphate  |               |           |                            |        |        |
|            | Acute crustacea toxicity | EC50 190 mg/l | 48 h      | Daphnia magna (Water flea) | IUCLID |        |

#### 12.2. Persistence and degradability

No data is available on the product itself.

#### 12.3. Bioaccumulative potential

no data available

#### 12.4. Mobility in soil

no data available

#### 12.5. Results of PBT and vPvB assessment

no data available

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**1995-32 Molybdate 3 Reagent for Silica**

Revision date: 02.02.2017

Product code: 199532

Page 7 of 8

**12.6. Other adverse effects**

Discharge into the environment must be avoided.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Advice on disposal**

In accordance with local and national regulations.

**Waste disposal number of waste from residues/unused products**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

**Waste disposal number of used product**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

**Waste disposal number of contaminated packaging**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

**SECTION 14: Transport information****Land transport (ADR/RID)**

|                                          |                                                                                         |
|------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>14.1. UN number:</b>                  | UN 3264                                                                                 |
| <b>14.2. UN proper shipping name:</b>    | Corrosive liquid, acidic, inorganic, n.o.s. (Sulphuric Acid/Sodium Bisulphate solution) |
| <b>14.3. Transport hazard class(es):</b> | 8                                                                                       |
| <b>14.4. Packing group:</b>              | III                                                                                     |

**Inland waterways transport (ADN)****Other applicable information (inland waterways transport)**

Not tested

**Marine transport (IMDG)**

|                                          |                                                                                         |
|------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>14.1. UN number:</b>                  | UN 3264                                                                                 |
| <b>14.2. UN proper shipping name:</b>    | Corrosive liquid, acidic, inorganic, n.o.s. (Sulphuric Acid/Sodium Bisulphate solution) |
| <b>14.3. Transport hazard class(es):</b> | 8                                                                                       |
| <b>14.4. Packing group:</b>              | III                                                                                     |
| Marine pollutant:                        | --                                                                                      |
| EmS:                                     | F-A,S-B                                                                                 |

**Air transport (ICAO-TI/IATA-DGR)**

|                                          |                                                                                         |
|------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>14.1. UN number:</b>                  | UN 3264                                                                                 |
| <b>14.2. UN proper shipping name:</b>    | Corrosive liquid, acidic, inorganic, n.o.s. (Sulphuric Acid/Sodium Bisulphate solution) |
| <b>14.3. Transport hazard class(es):</b> | 8                                                                                       |
| <b>14.4. Packing group:</b>              | III                                                                                     |

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**1995-32 Molybdate 3 Reagent for Silica**

Revision date: 02.02.2017

Product code: 199532

Page 8 of 8

**14.6. Special precautions for user**

Use personal protective equipment.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

Not relevant

**Other applicable information**

Additional Information: This product may be shipped as part of a chemical kit composed of various compatible dangerous goods for analytical or testing purposes. This kit would have the following classification: Proper Shipping Name: Chemical Kit, Hazard Class: 9, UN Number 3316, Package group II, EMS Code: F-A, S-P  
These transport data apply to the entire pack

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).  
Water contaminating class (D): 1 - slightly water contaminating

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Changes**

Revision: 2.02.2017  
Safety datasheet sections which have been updated: 2, 11  
Revision: 28.05.2015  
Safety datasheet sections which have been updated: 2, 11

**Relevant H and EUH statements (number and full text)**

|      |                                                                 |
|------|-----------------------------------------------------------------|
| H290 | May be corrosive to metals.                                     |
| H314 | Causes severe skin burns and eye damage.                        |
| H318 | Causes serious eye damage.                                      |
| H319 | Causes serious eye irritation.                                  |
| H335 | May cause respiratory irritation.                               |
| H372 | Causes damage to organs through prolonged or repeated exposure. |

**Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22542-32 Citric Acid F Reagent Solution**

Revision date: 27.11.2017

Product code: 2254232

Page 1 of 9

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

22542-32 Citric Acid F Reagent Solution

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Water analysis

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

Company name: HACH LANGE GmbH  
Street: Willstätterstr. 11  
Place: D-40549 Düsseldorf  
Telephone: +49 (0)211 5288-383  
e-mail: SDS@hach.com  
Internet: www.de.hach.com  
Responsible Department: HACH LANGE Ltd.  
5, Pacific Way  
Salford Manchester M50 1DL - United Kingdom  
Tel. +44 (0) 161 872 1487 \* Fax +44 (0) 161 848 7324  
e-Mail: info-uk@hach.com

HACH LANGE Ltd.  
Unit 1, Chestnut Road Western Industrial Estate  
IRL-Dublin 12  
Tel. +353 (0)1 4602522  
e-Mail: info-ie@hach.com

**1.4. Emergency telephone number:**

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Substance or mixture corrosive to metals: Met. Corr. 1

Skin corrosion/irritation: Skin Corr. 1

Hazard Statements:

May be corrosive to metals.

Causes severe skin burns and eye damage.

**2.2. Label elements****Regulation (EC) No. 1272/2008****Hazard components for labelling**

Propionic acid

Citric acid

**Signal word:** Danger**Pictograms:****Hazard statements**

H290

May be corrosive to metals.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## 22542-32 Citric Acid F Reagent Solution

Revision date: 27.11.2017

Product code: 2254232

Page 2 of 9

H314 Causes severe skin burns and eye damage.

### Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER/doctor.  
P390 Absorb spillage to prevent material damage.

### Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

### 2.3. Other hazards

None known.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous components

| CAS No    | Chemical name                                                   |          |          | Quantity |
|-----------|-----------------------------------------------------------------|----------|----------|----------|
|           | EC No                                                           | Index No | REACH No |          |
|           | Classification according to Regulation (EC) No. 1272/2008 [CLP] |          |          |          |
| 7732-18-5 | Water                                                           |          |          | >80 %    |
|           | 231-791-2                                                       |          |          |          |
| 77-92-9   | Citric acid                                                     |          |          | 16 %     |
|           | 201-069-1                                                       |          |          |          |
|           | Skin Irrit. 2, Eye Irrit. 2; H315 H319                          |          |          |          |
| 79-09-4   | Propionic acid                                                  |          |          | <1 %     |
|           | 201-176-3                                                       |          |          |          |
|           | Flam. Liq. 3, Skin Corr. 1B; H226 H314                          |          |          |          |

Full text of H and EUH statements: see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Take off all contaminated clothing immediately.

#### After inhalation

Move to fresh air.

#### After contact with skin

Wash off immediately with plenty of water.

#### After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### After ingestion

Clean mouth with water and drink afterwards plenty of water.

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

Irritation and corrosion

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

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22542-32 Citric Acid F Reagent Solution**

Revision date: 27.11.2017

Product code: 2254232

Page 3 of 9

Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

**5.2. Special hazards arising from the substance or mixture**

Fire may liberate hazardous vapours.

**5.3. Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

**Additional information**

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment.

**6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system.

**6.3. Methods and material for containment and cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

**6.4. Reference to other sections**

13. Disposal considerations

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Use only in well-ventilated areas.

**Advice on protection against fire and explosion**

See also section 5

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep in a dry, cool place.

**Hints on joint storage**

None known.

**7.3. Specific end use(s)**

Reagent for analysis

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure limits (EH40)**

| CAS No  | Substance      | ppm | mg/m <sup>3</sup> | fibres/ml | Category      | Origin |
|---------|----------------|-----|-------------------|-----------|---------------|--------|
| 79-09-4 | Propionic acid | 10  | 31                |           | TWA (8 h)     | WEL    |
|         |                | 15  | 46                |           | STEL (15 min) | WEL    |

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22542-32 Citric Acid F Reagent Solution**

Revision date: 27.11.2017

Product code: 2254232

Page 4 of 9

**Additional advice on limit values**

None known.

**8.2. Exposure controls****Appropriate engineering controls**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

**Protective and hygiene measures**

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Wash hands before breaks and after work.

**Eye/face protection**

Safety glasses with side-shields

**Hand protection**

Use barrier skin cream.

Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374. In full contact:

Gloves material: Viton, Layer thickness: 0.70 mm, Breakthrough time: >480 min. In splash contact: Glove material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: > 30 min

**Skin protection**

Remove and wash contaminated clothing before re-use.

**Respiratory protection**

Breathing apparatus only if aerosol or dust is formed. Recommended Filter type: ABEK-filter

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

|                      |            |
|----------------------|------------|
| Physical state:      | liquid     |
| Colour:              | colourless |
| Odour:               | odourless  |
| pH-Value (at 20 °C): | 1          |

**Changes in the physical state**

|                                          |                   |
|------------------------------------------|-------------------|
| Melting point:                           | <1 °C             |
| Initial boiling point and boiling range: | >100 °C           |
| Sublimation point:                       | not applicable    |
| Softening point:                         | not applicable    |
| Pour point:                              | not applicable    |
| :                                        | no data available |
| Flash point:                             | not applicable    |
| Sustaining combustion:                   | No data available |

**Flammability**

|        |                |
|--------|----------------|
| Solid: | not applicable |
| Gas:   | not applicable |

**Explosive properties**

not applicable

|                         |                   |
|-------------------------|-------------------|
| Lower explosion limits: | not applicable    |
| Upper explosion limits: | not applicable    |
| Ignition temperature:   | no data available |

**Auto-ignition temperature**

|        |                |
|--------|----------------|
| Solid: | not applicable |
|--------|----------------|

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22542-32 Citric Acid F Reagent Solution**

Revision date: 27.11.2017

Product code: 2254232

Page 5 of 9

Gas: not applicable

Decomposition temperature: no data available

**Oxidizing properties**

not applicable

Vapour pressure: no data available

Vapour pressure: no data available

Density (at 20 °C): 1,07 g/cm<sup>3</sup>

Bulk density: not applicable

Water solubility: soluble

**Solubility in other solvents**

no data available

Partition coefficient: no data available

Viscosity / dynamic: no data available

Viscosity / kinematic: no data available

Flow time: no data available

Vapour density: no data available

Evaporation rate: no data available

Solvent separation test: no data available

Solvent content: no data available

**9.2. Other information**

Solid content: not applicable

May be corrosive to metals.

Mild steel : 8,23 mm/a

**SECTION 10: Stability and reactivity****10.1. Reactivity**

See also section 10.3

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

No dangerous reaction known under conditions of normal use.

**10.4. Conditions to avoid**

Extremes of temperature and direct sunlight.

**10.5. Incompatible materials**

None known.

**10.6. Hazardous decomposition products**

No decomposition if stored and applied as directed.

**Further information**

None known.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity**

No data is available on the product itself.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## 22542-32 Citric Acid F Reagent Solution

Revision date: 27.11.2017

Product code: 2254232

Page 6 of 9

| CAS No  | Chemical name  |                  |         |        |        |
|---------|----------------|------------------|---------|--------|--------|
|         | Exposure route | Dose             | Species | Source | Method |
| 77-92-9 | Citric acid    |                  |         |        |        |
|         | oral           | LD50 3000 mg/kg  | rat     | IUCLID |        |
|         | dermal         | LD50 >2000 mg/kg | rat     | IUCLID |        |

### Irritation and corrosivity

Causes severe burns.

### Sensitising effects

Contains no substance or substances classified as sensitising.

### Carcinogenic/mutagenic/toxic effects for reproduction

Contains no ingredient listed as a carcinogen

### STOT-single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

### STOT-repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### Aspiration hazard

No aspiration toxicity classification

### Specific effects in experiment on an animal

No data is available on the product itself.

### Additional information on tests

no data available

### Practical experience

### Observations relevant to classification

no data available

### Other observations

no data available

### Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

## SECTION 12: Ecological information

### 12.1. Toxicity

No data is available on the product itself.

Do not flush into surface water or sanitary sewer system.

| CAS No  | Chemical name            |                   |           |                              |        |        |
|---------|--------------------------|-------------------|-----------|------------------------------|--------|--------|
|         | Aquatic toxicity         | Dose              | [h]   [d] | Species                      | Source | Method |
| 77-92-9 | Citric acid              |                   |           |                              |        |        |
|         | Acute fish toxicity      | LC50 440-760 mg/l | 96 h      | Leuciscus idus (Golden orfe) |        |        |
|         | Acute crustacea toxicity | EC50 160 mg/l     | 48 h      | Crustacea                    |        |        |

### 12.2. Persistence and degradability

No data is available on the product itself.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## 22542-32 Citric Acid F Reagent Solution

Revision date: 27.11.2017

Product code: 2254232

Page 7 of 9

| CAS No  | Chemical name                   |          |   |        |
|---------|---------------------------------|----------|---|--------|
|         | Method                          | Value    | d | Source |
|         | Evaluation                      |          |   |        |
| 77-92-9 | Citric acid                     |          |   |        |
|         | OECD Test Guideline 302         | 98 %     | 2 | IUCLID |
|         | Biochemical Oxygen Demand (BOD) | 526 mg/g | 5 | IUCLID |

### 12.3. Bioaccumulative potential

No data is available on the product itself.

### 12.4. Mobility in soil

no data available

### 12.5. Results of PBT and vPvB assessment

no data available

### 12.6. Other adverse effects

No known effect.

### Further information

no data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Advice on disposal

In accordance with local and national regulations.

#### Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

#### Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

#### Waste disposal number of contaminated packaging

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

#### Contaminated packaging

Dispose of as unused product.

## SECTION 14: Transport information

### Land transport (ADR/RID)

- 14.1. UN number:** UN 3265  
**14.2. UN proper shipping name:** Corrosive liquid, acidic, organic, n.o.s.  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** III

### Inland waterways transport (ADN)

#### Other applicable information (inland waterways transport)

Not tested

### Marine transport (IMDG)

- 14.1. UN number:** UN 3265

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22542-32 Citric Acid F Reagent Solution**

Revision date: 27.11.2017

Product code: 2254232

Page 8 of 9

**14.2. UN proper shipping name:** Corrosive liquid, acidic, organic, n.o.s. (Citric acid solution)**14.3. Transport hazard class(es):** 8**14.4. Packing group:** III

Marine pollutant: --

EmS: F-A,S-B

**Air transport (ICAO-TI/IATA-DGR)****14.1. UN number:** UN 3265**14.2. UN proper shipping name:** Corrosive liquid, acidic, organic, n.o.s. (Citric acid solution)**14.3. Transport hazard class(es):** 8**14.4. Packing group:** III**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

no data available

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

not applicable

**Other applicable information**

Additional Information: This product may be shipped as part of a chemical kit composed of various compatible dangerous goods for analytical or testing purposes. This kit would have the following classification: Proper Shipping Name: Chemical Kit, Hazard Class: 9, UN Number 3316, Package group II, EMS Code: F-A, S-P

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Water contaminating class (D): 1 - slightly water contaminating

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Changes**

Revision: 27.11.2017

Safety datasheet sections which have been updated: 2

Revision: 27.04.2015

Safety datasheet sections which have been updated: 2, 9

Revision: 22.01.2015

Safety datasheet sections which have been updated: 2, 9

**Relevant H and EUH statements (number and full text)**

H226 Flammable liquid and vapour.

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

**Further Information**

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### **22542-32 Citric Acid F Reagent Solution**

Revision date: 27.11.2017

Product code: 2254232

Page 9 of 9

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**23864-42 Amino Acid F Reagent Solution**

Revision date: 30.01.2018

Product code: 2386442

Page 1 of 9

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

23864-42 Amino Acid F Reagent Solution

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Water analysis

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

Company name: HACH LANGE GmbH  
Street: Willstätterstr. 11  
Place: D-40549 Düsseldorf  
Telephone: +49 (0)211 5288-383  
e-mail: SDS@hach.com  
Internet: www.de.hach.com  
Responsible Department: HACH LANGE Ltd.  
5, Pacific Way  
Salford Manchester M50 1DL - United Kingdom  
Tel. +44 (0) 161 872 1487 \* Fax +44 (0) 161 848 7324  
e-Mail: info-uk@hach.com

HACH LANGE Ltd.  
Unit 1, Chestnut Road Western Industrial Estate  
IRL-Dublin 12  
Tel. +353 (0)1 4602522  
e-Mail: info-ie@hach.com

**1.4. Emergency telephone number:**

Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service -

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory or skin sensitisation: Resp. Sens. 1

Hazard Statements:

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Causes serious eye damage.

Causes skin irritation.

**2.2. Label elements****Regulation (EC) No. 1272/2008****Hazard components for labelling**

sodium metabisulphite

**Signal word:** Danger**Pictograms:**

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## 23864-42 Amino Acid F Reagent Solution

Revision date: 30.01.2018

Product code: 2386442

Page 2 of 9

### Hazard statements

- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H318 Causes serious eye damage.  
H315 Causes skin irritation.

### Precautionary statements

- P280 Wear protective gloves/protective clothing/eye protection/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.  
P310 Immediately call a POISON CENTER/doctor.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

### Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

### 2.3. Other hazards

None known.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous components

| CAS No       | Chemical name                                                                                                         |              |          | Quantity |
|--------------|-----------------------------------------------------------------------------------------------------------------------|--------------|----------|----------|
|              | EC No                                                                                                                 | Index No     | REACH No |          |
|              | Classification according to Regulation (EC) No. 1272/2008 [CLP]                                                       |              |          |          |
| 7732-18-5    | Water                                                                                                                 |              |          | 80-90 %  |
|              | 231-791-2                                                                                                             |              |          |          |
| 7681-57-4    | sodium metabisulphite                                                                                                 |              |          | 5-10 %   |
|              | 231-673-0                                                                                                             | 016-063-00-2 |          |          |
|              | Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Resp. Sens. 1, STOT SE 3; H332 H302 H315 H318 H334 H335 EUH031 |              |          |          |
| 124-68-5     | 2-amino-2-methylpropanol                                                                                              |              |          | 5-10 %   |
|              | 204-709-8                                                                                                             | 603-070-00-6 |          |          |
|              | Eye Irrit. 2, Skin Irrit. 2, Aquatic Chronic 3; H319 H315 H412                                                        |              |          |          |
| confidential | Fast Amino Acid                                                                                                       |              |          | <1 %     |
|              |                                                                                                                       |              |          |          |
|              |                                                                                                                       |              |          |          |

Full text of H and EUH statements: see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Take off all contaminated clothing immediately.

#### After inhalation

Move to fresh air.

#### After contact with skin

Wash off immediately with plenty of water.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**23864-42 Amino Acid F Reagent Solution**

Revision date: 30.01.2018

Product code: 2386442

Page 3 of 9

**After contact with eyes**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**After ingestion**

Clean mouth with water and drink afterwards plenty of water.

Call a physician immediately.

**4.2. Most important symptoms and effects, both acute and delayed**

Irritation and corrosion

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

**Unsuitable extinguishing media**

None known.

**5.2. Special hazards arising from the substance or mixture**

Fire may liberate hazardous vapours.

The following may develop in event of fire: sulfur oxides., nitrogen oxides (NOx), Carbon monoxide, Carbon dioxide (CO2)

**5.3. Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

**Additional information**

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment.

**6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system.

**6.3. Methods and material for containment and cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

**6.4. Reference to other sections**

13. Disposal considerations

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Use only in well-ventilated areas.

Avoid contact with skin and eyes.

**Advice on protection against fire and explosion**

See also section 5

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep in a dry, cool place.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**23864-42 Amino Acid F Reagent Solution**

Revision date: 30.01.2018

Product code: 2386442

Page 4 of 9

**Hints on joint storage**

Keep away from oxidising agents and strongly acid or alkaline materials.

**7.3. Specific end use(s)**

Reagent for analysis

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure limits (EH40)**

| CAS No    | Substance           | ppm | mg/m <sup>3</sup> | fibres/ml | Category  | Origin |
|-----------|---------------------|-----|-------------------|-----------|-----------|--------|
| 7681-57-4 | Disodium disulphite | -   | 5                 |           | TWA (8 h) | WEL    |

**Additional advice on limit values**

None known.

**8.2. Exposure controls****Appropriate engineering controls**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

**Protective and hygiene measures**

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Wash hands before breaks and after work.

**Eye/face protection**

Safety glasses with side-shields

**Hand protection**

Use barrier skin cream.

Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374. In full contact:

Gloves material: Viton, Layer thickness: 0.70 mm, Breakthrough time: &gt;480 min. In splash contact: Glove material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: &gt; 30 min

**Skin protection**

Remove and wash contaminated clothing before re-use.

**Respiratory protection**

Breathing apparatus only if aerosol or dust is formed. Recommended Filter type: ABEK-filter

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state: liquid  
Colour: tan  
Odour: sweet

pH-Value (at 20 °C): 7,4

**Changes in the physical state**

Melting point: -7 °C

Initial boiling point and boiling range: 99 °C

Sublimation point: not applicable

Softening point: not applicable

Pour point: not applicable

: no data available

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**23864-42 Amino Acid F Reagent Solution**

Revision date: 30.01.2018

Product code: 2386442

Page 5 of 9

Flash point: 93 °C

Sustaining combustion: No data available

**Flammability**

Solid: not applicable

Gas: not applicable

**Explosive properties**

not applicable

Lower explosion limits: not applicable

Upper explosion limits: not applicable

Ignition temperature: no data available

**Auto-ignition temperature**

Solid: not applicable

Gas: not applicable

Decomposition temperature: no data available

**Oxidizing properties**

not applicable

Vapour pressure: no data available

Vapour pressure: no data available

Density (at 20 °C): 1,15 g/cm³

Bulk density: not applicable

Water solubility: soluble

**Solubility in other solvents**

no data available

Partition coefficient: no data available

Viscosity / dynamic: no data available

Viscosity / kinematic: no data available

Flow time: no data available

Vapour density: no data available

Evaporation rate: no data available

Solvent separation test: no data available

Solvent content: no data available

**9.2. Other information**

Solid content: not applicable

no data available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

See also section 10.3

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

No dangerous reaction known under conditions of normal use.

**10.4. Conditions to avoid**

Extremes of temperature and direct sunlight.

## 23864-42 Amino Acid F Reagent Solution

Revision date: 30.01.2018

Product code: 2386442

Page 6 of 9

### 10.5. Incompatible materials

Oxidizing agents

### 10.6. Hazardous decomposition products

Sulphur oxides

Carbon oxides

### Further information

None known.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity

No data is available on the product itself.

| CAS No       | Chemical name            |                   |         |        |        |
|--------------|--------------------------|-------------------|---------|--------|--------|
|              | Exposure route           | Dose              | Species | Source | Method |
| 7681-57-4    | sodium metabisulphite    |                   |         |        |        |
|              | oral                     | LD50 1131 mg/kg   | Rat     |        |        |
|              | dermal                   | LD50 >2000 mg/kg  | Rat     |        |        |
|              | inhalation vapour        | ATE 11 mg/l       |         |        |        |
|              | inhalation (4 h) aerosol | LC50 2,01 mg/l    | Rat     |        |        |
| 124-68-5     | 2-amino-2-methylpropanol |                   |         |        |        |
|              | oral                     | LD50 2900 mg/kg   | Rat     | IUCLID |        |
|              | dermal                   | LD50 > 2000 mg/kg | Rabbit  | IUCLID |        |
| confidential | Fast Amino Acid          |                   |         |        |        |
|              | oral                     | LD50 >=2000 mg/kg | Rat     |        |        |

#### Irritation and corrosivity

H318 - Causes serious eye damage.

May cause skin irritation.

#### Sensitising effects

May cause sensitisation by inhalation.

#### Carcinogenic/mutagenic/toxic effects for reproduction

Contains no ingredient listed as a carcinogen

#### STOT-single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### STOT-repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### Aspiration hazard

No aspiration toxicity classification

#### Specific effects in experiment on an animal

No data is available on the product itself.

#### Additional information on tests

no data available

#### Practical experience

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## 23864-42 Amino Acid F Reagent Solution

Revision date: 30.01.2018

Product code: 2386442

Page 7 of 9

### Observations relevant to classification

no data available

### Other observations

no data available

### Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

## SECTION 12: Ecological information

### 12.1. Toxicity

No data is available on the product itself.

Do not flush into surface water or sanitary sewer system.

| CAS No       | Chemical name            |                     |           |                                       |        |        |
|--------------|--------------------------|---------------------|-----------|---------------------------------------|--------|--------|
|              | Aquatic toxicity         | Dose                | [h]   [d] | Species                               | Source | Method |
| 7681-57-4    | sodium metabisulphite    |                     |           |                                       |        |        |
|              | Acute fish toxicity      | LC50 150 - 220 mg/l | 96 h      | Onchorhynchus mykiss                  |        |        |
|              | Acute crustacea toxicity | EC50 89 mg/l        | 48 h      | Daphnia magna (Water flea)            |        |        |
| 124-68-5     | 2-amino-2-methylpropanol |                     |           |                                       |        |        |
|              | Acute fish toxicity      | LC50 190 mg/l       | 96 h      | Lepomis macrochirus                   | IUCLID |        |
|              | Acute algae toxicity     | ErC50 520 mg/l      | 72 h      | Desmodesmus subspicatus               |        |        |
| confidential | Fast Amino Acid          |                     |           |                                       |        |        |
|              | Acute fish toxicity      | LC50 218 mg/l       | 96 h      | Daphnia                               |        |        |
|              | Acute algae toxicity     | ErC50 157 mg/l      | 96 h      | Scenedesmus quadricauda (Green algae) |        |        |

### 12.2. Persistence and degradability

No data is available on the product itself.

### 12.3. Bioaccumulative potential

No data is available on the product itself.

### Partition coefficient n-octanol/water

| CAS No   | Chemical name            | Log Pow |
|----------|--------------------------|---------|
| 124-68-5 | 2-amino-2-methylpropanol | -0,74   |

### 12.4. Mobility in soil

no data available

### 12.5. Results of PBT and vPvB assessment

no data available

### 12.6. Other adverse effects

No known effect.

### Further information

no data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**23864-42 Amino Acid F Reagent Solution**

Revision date: 30.01.2018

Product code: 2386442

Page 8 of 9

**Advice on disposal**

In accordance with local and national regulations.

**Waste disposal number of waste from residues/unused products**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

**Waste disposal number of used product**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

**Waste disposal number of contaminated packaging**

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14: Transport information****Land transport (ADR/RID)****Other applicable information (land transport)**

Not subject to transport regulations.

**Inland waterways transport (ADN)****Other applicable information (inland waterways transport)**

Not tested

**Marine transport (IMDG)****Other applicable information (marine transport)**

Not subject to transport regulations.

**Air transport (ICAO-TI/IATA-DGR)****Other applicable information (air transport)**

Not subject to transport regulations.

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**14.6. Special precautions for user**

no data available

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

not applicable

**Other applicable information**

no data available

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information**

Water contaminating class (D): 3 - highly water contaminating

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 23864-42 Amino Acid F Reagent Solution

Revision date: 30.01.2018

Product code: 2386442

Page 9 of 9

#### SECTION 16: Other information

##### Changes

Revision: 30.01.2018

Safety datasheet sections which have been updated: 5, 7

Revision: 15.02.2016

Safety datasheet sections which have been updated: 2, 3, 4, 11

Revision: 04.05.2015

Safety datasheet sections which have been updated: 2, 4, 11

This data sheet contains changes from the previous version in section(s): 2, 9, 10, 15

##### Relevant H and EUH statements (number and full text)

|        |                                                                            |
|--------|----------------------------------------------------------------------------|
| H302   | Harmful if swallowed.                                                      |
| H315   | Causes skin irritation.                                                    |
| H318   | Causes serious eye damage.                                                 |
| H319   | Causes serious eye irritation.                                             |
| H332   | Harmful if inhaled.                                                        |
| H334   | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335   | May cause respiratory irritation.                                          |
| H412   | Harmful to aquatic life with long lasting effects.                         |
| EUH031 | Contact with acids liberates toxic gas.                                    |

##### Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*