

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 22297-26 EGTA Solution

Revision date: 15.03.2021

Product code: 2229726

Page 1 of 9

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

### 1.1. Product identifier

22297-26 EGTA Solution

UFI: 9PH5-PD9G-U00U-WU85

### 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. 1A

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

May be corrosive to metals.

Causes severe skin burns and eye damage.

Causes serious eye damage.

### 2.2. Label elements

#### Regulation (EC) No. 1272/2008

##### Hazard components for labelling

sodium hydroxide; caustic soda

Signal word: Danger

Pictograms:



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22297-26 EGTA Solution**

Revision date: 15.03.2021

Product code: 2229726

Page 2 of 9

**Hazard statements**

H290 May be corrosive to metals.  
 H314 Causes severe skin burns and eye damage.

**Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
 P234 Keep only in original packaging.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 P363 Wash contaminated clothing before reuse.  
 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.  
 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 |          |
|           | GHS Classification             |              |          |          |
| 7732-18-5 | Water                          |              |          | 90-100 % |
|           | 231-791-2                      |              |          |          |
| 1310-73-2 | sodium hydroxide; caustic soda |              |          | < 2 %    |
|           | 215-185-5                      | 011-002-00-6 |          |          |
|           | Skin Corr. 1A; H314            |              |          |          |
| 67-42-5   | EGTA                           |              |          | 1-5 %    |
|           | 200-651-2                      |              |          |          |

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

**Specific concentration limits and M-factors**

| CAS No    | EC No   | Chemical name                  | Quantity |
|-----------|---|--------------------------------|----------|
|           | Specific concentration limits and M-factors   |                                |          |
| 1310-73-2 | 215-185-5   | sodium hydroxide; caustic soda | < 2 %    |
|           | Skin Corr. 1A; H314: >= 5 - 100 Skin Corr. 1B; H314: >= 2 - < 5 Skin Irrit. 2; H315: >= 0,5 - < 2<br>Eye Irrit. 2; H319: >= 0,5 - < 2 |                                |          |

**SECTION 4: First aid measures**
**4.1. Description of first aid measures**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 22297-26 EGTA Solution

Revision date: 15.03.2021

Product code: 2229726

Page 3 of 9

#### General information

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

#### After inhalation

Move to fresh air. Consult a physician.

#### After contact with skin

Wash off immediately with plenty of water for at least 15 minutes. Consult a physician.  
Show this safety data sheet to the doctor in attendance.

#### After contact with eyes

Rinse immediately with plenty of water for at least 15 minutes. Call a physician immediately.

#### After ingestion

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

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

Irritation and corrosion, Cough, Shortness of breath

#### 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.

##### Unsuitable extinguishing media

None known.

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

The product itself does not burn.  
Fire may liberate hazardous vapours.

#### 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

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 22297-26 EGTA Solution

Revision date: 15.03.2021

Product code: 2229726

Page 4 of 9

#### Advice on safe handling

Avoid contact with skin and eyes. Do not breathe vapours or spray mist. Use only in well-ventilated areas.

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

##### Requirements for storage rooms and vessels

Keep at temperatures between 10 and 25 °C. Keep container tightly closed in a dry and well-ventilated place.

##### Hints on joint storage

Do not store near acids.

##### Further information on storage conditions

Keep locked up or in an area accessible only to qualified or authorised persons.

#### 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 |
|-----------|------------------|-----|-------------------|-----------|---------------|--------|
| 1310-73-2 | Sodium hydroxide | -   | 2                 |           | STEL (15 min) | 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: &gt;480 min. In splash contact: Glove

material: nitrile rubber, Layer thickness 0,20 mm, Breakthrough time: &gt; 30 min

#### Skin protection

Avoid contact with skin, eyes and clothing.

#### Respiratory protection

Ensure adequate ventilation, especially in confined areas.

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:              | yellow    |
| Odour:               | odourless |
| pH-Value (at 20 °C): | > 13      |

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22297-26 EGTA Solution**

Revision date: 15.03.2021

Product code: 2229726

Page 5 of 9

**Changes in the physical state**

|  |                   |
|--|-------------------|
| Melting point:                           | no data available |
| Initial boiling point and boiling range: | 95,5 °C           |
| Sublimation point:                       | not applicable    |
| Softening point:                         | not applicable    |
| Pour point:                              | not applicable    |
| Flash point:                             | not applicable    |

**Flammability**

|        |                |
|--------|----------------|
| Solid: | not applicable |
| 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: | no data available |
| Gas:   | no data available |

Decomposition temperature: @N09.006025650 °C

**Oxidizing properties**

not applicable

|                     |                        |
|---------------------|------------------------|
| Vapour pressure:    | no data available      |
| Density (at 20 °C): | 1,03 g/cm <sup>3</sup> |
| Bulk density:       | not applicable         |
| Water solubility:   | soluble                |

**Solubility in other solvents**

no data available

|                          |                   |
|--------------------------|-------------------|
| Partition coefficient:   | not applicable    |
| 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

Corrosive in contact with metals

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

Corrosive to metals

**10.2. Chemical stability**

Stable under recommended storage conditions.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 22297-26 EGTA Solution

Revision date: 15.03.2021

Product code: 2229726

Page 6 of 9

#### 10.3. Possibility of hazardous reactions

Reacts with the following substances: Metals, Light metals, Acids

#### 10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

#### 10.5. Incompatible materials

Acids

#### 10.6. Hazardous decomposition products

Sulphur oxides, Carbon oxides, nitrogen oxides (NOx)

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Toxicokinetics, metabolism and distribution

No toxicology information is available.

##### Acute toxicity

No data is available on the product itself.

##### 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

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 toxicology information is 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.

| CAS No    | Chemical name                  |              |           |                                 |        |        |
|-----------|--------------------------------|--------------|-----------|---------------------------------|--------|--------|
|           | Aquatic toxicity               | Dose         | [h]   [d] | Species                         | Source | Method |
| 1310-73-2 | sodium hydroxide; caustic soda |              |           |                                 |        |        |
|           | Acute fish toxicity            | LC50<br>mg/l | 45,4      | 96 h<br>Onchorhynchus<br>mykiss |        |        |

#### 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.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 22297-26 EGTA Solution

Revision date: 15.03.2021

Product code: 2229726

Page 7 of 9

#### 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.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Disposal recommendations

In accordance with local and national regulations.

##### List of Wastes Code - 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

##### List of Wastes Code - 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

##### List of Wastes Code - 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)

|  |                           |
|--|---------------------------|
| <u>14.1. UN number:</u>                  | UN 1824                   |
| <u>14.2. UN proper shipping name:</u>    | SODIUM HYDROXIDE SOLUTION |
| <u>14.3. Transport hazard class(es):</u> | 8                         |
| <u>14.4. Packing group:</u>              | II                        |
| Hazard label:                            | 8                         |



|                          |     |
|--------------------------|-----|
| Classification code:     | C5  |
| Limited quantity:        | 1 L |
| Excepted quantity:       | E2  |
| Transport category:      | 2   |
| Hazard No:               | 80  |
| Tunnel restriction code: | E   |

#### Inland waterways transport (ADN)

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

Not tested

#### Marine transport (IMDG)

|  |                           |
|--|---------------------------|
| <u>14.1. UN number:</u>                  | UN 1824                   |
| <u>14.2. UN proper shipping name:</u>    | SODIUM HYDROXIDE SOLUTION |
| <u>14.3. Transport hazard class(es):</u> | 8                         |
| <u>14.4. Packing group:</u>              | II                        |

## Safety Data Sheet


according to Regulation (EC) No 1907/2006

### 22297-26 EGTA Solution

Revision date: 15.03.2021

Product code: 2229726

Page 8 of 9

Hazard label: 8  
  
 Marine pollutant: --  
 Special Provisions: -  
 Limited quantity: 1 L  
 Excepted quantity: E2  
 EmS: F-A, S-B

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

**14.1. UN number:** UN 1824  
**14.2. UN proper shipping name:** SODIUM HYDROXIDE SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
 Hazard label: 8



Special Provisions: A3 A803  
 Limited quantity Passenger: 0.5 L  
 Passenger LQ: Y840  
 Excepted quantity: E2  
 IATA-packing instructions - Passenger: 851  
 IATA-max. quantity - Passenger: 1 L  
 IATA-packing instructions - Cargo: 855  
 IATA-max. quantity - Cargo: 30 L

#### 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 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

##### EU regulatory information

Restrictions on use (REACH, annex XVII):  
 Entry 3

##### National regulatory information

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



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22297-26 EGTA Solution**

Revision date: 15.03.2021

Product code: 2229726

Page 9 of 9

**15.2. Chemical safety assessment**

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

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

Revision: 15.03.2021

Safety datasheet sections which have been updated: 7, 9, 10, 14-16

Revision: 2.01.2017

Safety datasheet sections which have been updated: 2, 11

Revision: 4.01.2016

Safety datasheet sections which have been updated: 2, 11

Revision: 28.05.2015

Safety datasheet sections which have been updated: 2, 11

**Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]**

| Classification      | Classification procedure |
|---------------------|--------------------------|
| Met. Corr. 1; H290  | On basis of test data    |
| Skin Corr. 1A; H314 | Calculation method       |
| Eye Dam. 1; H318    | Calculation method       |

**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.               |

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance 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

### 22417-32 Alkali Solution

Revision date: 15.03.2021

Product code: 2241732

Page 1 of 9

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

### 1.1. Product identifier

22417-32 Alkali Solution

UFI: XU95-6D2R-C008-0HN0

### 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. 1A

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

May be corrosive to metals.

Causes severe skin burns and eye damage.

Causes serious eye damage.

### 2.2. Label elements

#### Regulation (EC) No. 1272/2008

##### Hazard components for labelling

sodium hydroxide; caustic soda

Signal word: Danger

Pictograms:



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22417-32 Alkali Solution**

Revision date: 15.03.2021

Product code: 2241732

Page 2 of 9

**Hazard statements**

- H290 May be corrosive to metals.  
 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/hearing protection.  
 P234 Keep only in original packaging.  
 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.  
 P363 Wash contaminated clothing before reuse.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 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 |          |
|           | GHS Classification             |              |          |          |
| 7732-18-5 | Water                          |              |          | > 50 %   |
|           | 231-791-2                      |              |          |          |
| 1310-73-2 | sodium hydroxide; caustic soda |              |          | < 30 %   |
|           | 215-185-5                      | 011-002-00-6 |          |          |
|           | Skin Corr. 1A; H314            |              |          |          |
| 102-71-6  | Triethanolamine                |              |          | < 25 %   |
|           | 203-049-8                      |              |          |          |

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

**Specific concentration limits and M-factors**

| CAS No    | EC No   | Chemical name                  | Quantity |
|-----------|---|--------------------------------|----------|
|           | Specific concentration limits and M-factors   |                                |          |
| 1310-73-2 | 215-185-5   | sodium hydroxide; caustic soda | < 30 %   |
|           | Skin Corr. 1A; H314: >= 5 - 100 Skin Corr. 1B; H314: >= 2 - < 5 Skin Irrit. 2; H315: >= 0,5 - < 2<br>Eye Irrit. 2; H319: >= 0,5 - < 2 |                                |          |

**SECTION 4: First aid measures**
**4.1. Description of first aid measures**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 22417-32 Alkali Solution

Revision date: 15.03.2021

Product code: 2241732

Page 3 of 9

#### General information

Take off all contaminated clothing immediately.  
Consult a physician. Show this safety data sheet to the doctor in attendance.

#### After inhalation

Move to fresh air.  
Consult a physician. Show this safety data sheet to the doctor in attendance.

#### After contact with skin

Wash off immediately with plenty of water for at least 15 minutes. Consult a physician. Show this safety data sheet to the doctor in attendance.

#### After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Show this safety data sheet to the doctor in attendance.

#### After ingestion

Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting.  
Consult a physician. Show this safety data sheet to the doctor in attendance.

#### 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.

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

Fire may liberate hazardous vapours. (Carbon dioxide (CO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), Carbon oxides)

#### 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

Use only in well-ventilated areas. Do not breathe vapours/dust.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22417-32 Alkali Solution**

Revision date: 15.03.2021

Product code: 2241732

Page 4 of 9

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

Keep tightly closed in a dry, cool and well-ventilated place.

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

Laboratory chemicals

**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 |
|-----------|------------------|-----|-------------------|-----------|---------------|--------|
| 1310-73-2 | Sodium hydroxide | -   | 2                 |           | STEL (15 min) | 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**

Ensure adequate ventilation, especially in confined areas.

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

|                      |            |    |
|----------------------|------------|----|
| Physical state:      | liquid     |    |
| Colour:              | colourless |    |
| Odour:               | ammoniacal |    |
| pH-Value (at 20 °C): |            | 13 |

**Changes in the physical state**

|  |                |
|--|----------------|
| Melting point:                           | not applicable |
| Initial boiling point and boiling range: | 97 °C          |
| Sublimation point:                       | not applicable |
| Softening point:                         | not applicable |
| Pour point:                              | not applicable |

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22417-32 Alkali Solution**

Revision date: 15.03.2021

Product code: 2241732

Page 5 of 9

Flash point: not applicable

**Flammability**

Solid: not applicable

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: no data available

**Oxidizing properties**

not applicable

Vapour pressure: no data available

Density (at 20 °C): 1,258 g/cm<sup>3</sup>

Bulk density: not applicable

Water solubility: completely soluble

(at 20 °C)

**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: 0,36

(at 20 °C)

Solvent separation test: no data available

Solvent content: no data available

**9.2. Other information**

Solid content: not applicable

Corrosive in contact with metals

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

Reactivity Hazard: Oxidizing agents

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.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22417-32 Alkali Solution**

Revision date: 15.03.2021

Product code: 2241732

Page 6 of 9

**10.5. Incompatible materials**

Acids, Oxidizing agents

**10.6. Hazardous decomposition products**

No decomposition if stored and applied as directed.

**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 |
| 102-71-6 | Triethanolamine |               |         |        |        |
|          | oral            | LD50<br>mg/kg | 5530    | rat    |        |
|          | dermal          | LD50<br>mg/kg | 22500   | rabbit |        |

**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**

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.

**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**

May cause long-term adverse effects in the aquatic environment.

Do not flush into surface water or sanitary sewer system.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 22417-32 Alkali Solution

Revision date: 15.03.2021

Product code: 2241732

Page 7 of 9

| CAS No    | Chemical name                  |                   |           |         |                         |        |
|-----------|--------------------------------|-------------------|-----------|---------|-------------------------|--------|
|           | Aquatic toxicity               | Dose              | [h]   [d] | Species | Source                  | Method |
| 1310-73-2 | sodium hydroxide; caustic soda |                   |           |         |                         |        |
|           | Acute fish toxicity            | LC50<br>mg/l      | 45,4      | 96 h    | Onchorhynchus<br>mykiss |        |
| 102-71-6  | Triethanolamine                |                   |           |         |                         |        |
|           | Acute fish toxicity            | LC50<br>1000 mg/l | 450-      | 96 h    |                         |        |
|           | Acute crustacea toxicity       | EC50              | 610 mg/l  | 48 h    |                         |        |

#### 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.

#### 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.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Disposal recommendations

In accordance with local and national regulations.

##### List of Wastes Code - 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

##### List of Wastes Code - 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

### SECTION 14: Transport information

#### Land transport (ADR/RID)

##### 14.1. UN number:

UN 1824

##### 14.2. UN proper shipping name:

SODIUM HYDROXIDE SOLUTION

##### 14.3. Transport hazard class(es):

8

##### 14.4. Packing group:

II

Hazard label:

8



Classification code:

C5

Limited quantity:

1 L

Excepted quantity:

E2

Transport category:

2



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22417-32 Alkali Solution**

Revision date: 15.03.2021

Product code: 2241732

Page 8 of 9

Hazard No: 80  
Tunnel restriction code: E

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

Not tested

**Marine transport (IMDG)**

**14.1. UN number:** UN 1824  
**14.2. UN proper shipping name:** SODIUM HYDROXIDE SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8



Special Provisions: -  
Limited quantity: 1 L  
Excepted quantity: E2  
EmS: F-A, S-B

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

**14.1. UN number:** UN 1824  
**14.2. UN proper shipping name:** SODIUM HYDROXIDE SOLUTION  
**14.3. Transport hazard class(es):** 8  
**14.4. Packing group:** II  
Hazard label: 8



Special Provisions: A3 A803  
Limited quantity Passenger: 0.5 L  
Passenger LQ: Y840  
Excepted quantity: E2  
IATA-packing instructions - Passenger: 851  
IATA-max. quantity - Passenger: 1 L  
IATA-packing instructions - Cargo: 855  
IATA-max. quantity - Cargo: 30 L

**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 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**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22417-32 Alkali Solution**

Revision date: 15.03.2021

Product code: 2241732

Page 9 of 9

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3

**National regulatory information**

Water hazard class (D): 1 - slightly hazardous to water

**15.2. Chemical safety assessment**

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

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

Revision: 15.03.2021

Safety datasheet sections which have been updated: 2, 7, 9, 10, 14 - 16

Revision: 30.01.2017

Safety datasheet sections which have been updated: 2, 11

Revision: 1.09.2015

Safety datasheet sections which have been updated: 2

Revision: 28.04.2015

Safety datasheet sections which have been updated: 2, 11

Revision: 2.10.2014

Safety datasheet sections which have been updated: 2, 4, 6, 7-12, 14, 15

**Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]**

| Classification      | Classification procedure |
|---------------------|--------------------------|
| Met. Corr. 1; H290  | On basis of test data    |
| Skin Corr. 1A; H314 | Calculation method       |
| Eye Dam. 1; H318    | Calculation method       |

**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.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance 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

**22418-32 Calcium/Magnesium Indicator Solution**

Revision date: 11.06.2021

Product code: 2241832

Page 1 of 8

Creation date: 29.06.2005

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

22418-32 Calcium/Magnesium Indicator Solution

UFI: TH9V-WDFR-800N-62G8

**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 Irrit. 2

Hazard Statements:

Causes skin irritation.

Causes serious eye irritation.

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

propionic acid 1 %

Signal word: Warning

Pictograms:



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 22418-32 Calcium/Magnesium Indicator Solution

Revision date: 11.06.2021

Product code: 2241832

Page 2 of 8

Creation date: 29.06.2005

#### Hazard statements

H315 Causes skin irritation.  
H319 Causes serious eye irritation.

#### Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing 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.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P362+P364 Take off contaminated clothing and wash it before reuse.

#### Additional advice on labelling

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

#### 2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous components

| CAS No    | Chemical name                          |          |          | Quantity |
|-----------|--|----------|----------|----------|
|           | EC No                                  | Index No | REACH No |          |
|           | CLP Classification                     |          |          |          |
| 7732-18-5 | Water                                  |          |          | > 95 %   |
|           | 231-791-2                              |          |          |          |
| 79-09-4   | Propionic acid                         |          |          | 1-5 %    |
|           | 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.

Consult a physician.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 22418-32 Calcium/Magnesium Indicator Solution

Revision date: 11.06.2021

Product code: 2241832

Page 3 of 8

Creation date: 29.06.2005

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

irritant effects

#### **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.

#### **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 containers tightly closed in a cool, well-ventilated 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**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 22418-32 Calcium/Magnesium Indicator Solution

Revision date: 11.06.2021

Product code: 2241832

Page 4 of 8

Creation date: 29.06.2005

#### 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    |

#### 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

Provide adequate ventilation.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

|                      |                   |
|----------------------|-------------------|
| Physical state:      | liquid            |
| Colour:              | dark red          |
| Odour:               | no data available |
| pH-Value (at 20 °C): | 2,65              |

##### Changes in the physical state

|  |                   |
|--|-------------------|
| Melting point:                           | no data available |
| Initial boiling point and boiling range: | 97 °C             |
| Sublimation point:                       | not applicable    |
| Softening point:                         | not applicable    |
| Pour point:                              | not applicable    |
| :  | no data available |
| Flash point:                             | no data available |
| Sustaining combustion:                   | No data available |

##### Flammability

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

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22418-32 Calcium/Magnesium Indicator Solution**

Revision date: 11.06.2021

Product code: 2241832

Page 5 of 8

Creation date: 29.06.2005

**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):

0,995 g/cm<sup>3</sup>

Bulk density:

not applicable

Water solubility:

soluble

(at 20 °C)

**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.

**10.5. Incompatible materials**

None known.

**10.6. Hazardous decomposition products**

Carbon oxides

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 22418-32 Calcium/Magnesium Indicator Solution

Revision date: 11.06.2021

Product code: 2241832

Page 6 of 8

Creation date: 29.06.2005

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Acute toxicity**

No data is available on the product itself.

**Irritation and corrosivity**

May cause eye and skin irritation.

**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.

### 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.

### 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



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 22418-32 Calcium/Magnesium Indicator Solution

Revision date: 11.06.2021

Product code: 2241832

Page 7 of 8

Creation date: 29.06.2005

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations

In accordance with local and national regulations.

#### List of Wastes Code - 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

#### List of Wastes Code - 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

#### List of Wastes Code - 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

#### EU regulatory information

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22418-32 Calcium/Magnesium Indicator Solution**

Revision date: 11.06.2021

Product code: 2241832

Page 8 of 8

Creation date: 29.06.2005

Restrictions on use (REACH, annex XVII):

Entry 3

**National regulatory information**

Water hazard class (D): 2 - obviously hazardous to water

**15.2. Chemical safety assessment**

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

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

Revision: 23.07.2020

Safety datasheet sections which have been updated: 15, 16

Revision: 30.05.2017

Safety datasheet sections which have been updated: 2, 3, 4, 9, 10, 11

Revision: 26.01.2015

Safety datasheet sections which have been updated: 2

**Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]**

| Classification      | Classification procedure |
|---------------------|--------------------------|
| Skin Irrit. 2; H315 | Calculation method       |
| Eye Irrit. 2; H319  | Calculation method       |

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

H226 Flammable liquid and vapour.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance 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

**22419-26 EDTA Solution, 1M**

Revision date: 26.04.2022

Product code: 2241926

Page 1 of 8

Creation date: 13.06.2005

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

22419-26 EDTA Solution, 1M

UFI: 517X-GC3G-800C-KKUU

**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:

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

Causes serious eye damage.

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

tetrasodium ethylene diamine tetraacetate

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

H318 Causes serious eye damage.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22419-26 EDTA Solution, 1M**

Revision date: 26.04.2022

Product code: 2241926

Page 2 of 8

Creation date: 13.06.2005

**Precautionary statements**

- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing 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.

**Special labelling of certain mixtures**

- EUH208 Contains formaldehyde %. May produce an allergic reaction.

**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  |          |
|           | CLP Classification   |          |
| 7732-18-5 | Water  | 50-60 %  |
|           | 231-791-2  |          |
| 64-02-8   | tetrasodium ethylene diamine tetraacetate  | 40-50 %  |
|           | 200-573-9 607-428-00-2   |          |
|           | Acute Tox. 4, Eye Dam. 1; H302 H318  |          |
| 50-00-0   | formaldehyde ... %   | < 0,1 %  |
|           | 200-001-8 605-001-00-5   |          |
|           | Carc. 1B, Muta. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 3, Skin Corr. 1B, Skin Sens. 1; H350 H341 H331 H311 H301 H314 H317 |          |

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

**Specific concentration limits and M-factors**

| CAS No  | EC No     | Chemical name  | Quantity |
|---------|-----------|--|----------|
|         |           | Specific concentration limits and M-factors  |          |
| 50-00-0 | 200-001-8 | formaldehyde ... %   | < 0,1 %  |
|         |           | Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 5 - < 25 Eye Irrit. 2; H319: >= 5 - < 25 Skin Sens. 1; H317: >= 0,2 - 100 STOT SE 3; H335: >= 5 - 100 |          |

**SECTION 4: First aid measures**
**4.1. Description of first aid measures**
**General information**

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

**After inhalation**

not hazardous by inhalation

**After contact with skin**

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 22419-26 EDTA Solution, 1M

Revision date: 26.04.2022

Product code: 2241926

Page 3 of 8

Creation date: 13.06.2005

#### **After contact with eyes**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Show this safety data sheet to the doctor in attendance.

#### **After ingestion**

Drink 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.

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

The product itself does not burn.

#### **5.3. Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus.

#### **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.

#### **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. Do not breathe vapours or spray mist.

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

##### **Requirements for storage rooms and vessels**

Keep containers tightly closed in a cool, well-ventilated place.

##### **Hints on joint storage**

Do not store together with Oxidizing agents

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

Reagent for analysis

### SECTION 8: Exposure controls/personal protection

#### **8.1. Control parameters**

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 22419-26 EDTA Solution, 1M

Revision date: 26.04.2022

Product code: 2241926

Page 4 of 8

Creation date: 13.06.2005

#### Exposure limits (EH40)

| CAS No  | Substance    | ppm | mg/m <sup>3</sup> | fibres/ml | Category      | Origin |
|---------|--------------|-----|-------------------|-----------|---------------|--------|
| 50-00-0 | Formaldehyde | 2   | 2.5               |           | TWA (8 h)     | WEL    |
|         |              | 2   | 2.5               |           | STEL (15 min) | 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

Provide adequate ventilation.

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): | 10,3       |

##### Changes in the physical state

|  |                   |
|--|-------------------|
| Melting point:                           | no data available |
| Initial boiling point and boiling range: | 97 °C             |
| Sublimation point:                       | not applicable    |
| Softening point:                         | not applicable    |
| Pour point:                              | not applicable    |
| Flash point:                             | not applicable    |

##### Flammability

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

##### Explosive properties

not applicable

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22419-26 EDTA Solution, 1M**

Revision date: 26.04.2022

Product code: 2241926

Page 5 of 8

Creation date: 13.06.2005

|                                     |                         |
|-------------------------------------|-------------------------|
| Lower explosion limits:             | not applicable          |
| Upper explosion limits:             | not applicable          |
| Ignition temperature:               | not applicable          |
| <b>Auto-ignition temperature</b>    |                         |
| Solid:                              | not applicable          |
| Gas:                                | not applicable          |
| Decomposition temperature:          | no data available       |
| <b>Oxidizing properties</b>         |                         |
| not applicable                      |                         |
| Vapour pressure:                    | no data available       |
| Density (at 20 °C):                 | 1,180 g/cm <sup>3</sup> |
| Bulk density:                       | not applicable          |
| Water solubility:<br>(at 20 °C)     | soluble                 |
| <b>Solubility in other solvents</b> |                         |
| 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 |
|----------------|----------------|

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

No dangerous reaction known under conditions of normal use.

**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**

Extremes of temperature and direct sunlight. To avoid thermal decomposition, do not overheat.

**10.5. Incompatible materials**

Metals

**10.6. Hazardous decomposition products**nitrogen oxides (NO<sub>x</sub>), Carbon oxides**SECTION 11: Toxicological information****11.1. Information on toxicological effects**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22419-26 EDTA Solution, 1M**

Revision date: 26.04.2022

Product code: 2241926

Page 6 of 8

Creation date: 13.06.2005

**Toxicokinetics, metabolism and distribution**

No toxicology information is available.

**Acute toxicity**

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

| CAS No  | Chemical name                             |               |          |        |        |
|---------|---|---------------|----------|--------|--------|
|         | Exposure route                            | Dose          | Species  | Source | Method |
| 64-02-8 | tetrasodium ethylene diamine tetraacetate |               |          |        |        |
|         | oral                                      | LD50<br>mg/kg | 1658     | rat    |        |
| 50-00-0 | formaldehyde ... %                        |               |          |        |        |
|         | oral                                      | ATE<br>mg/kg  | 100      |        |        |
|         | dermal                                    | ATE<br>mg/kg  | 300      |        |        |
|         | inhalation (4 h) vapour                   | LC50          | 250 mg/l | rat    |        |
|         | inhalation aerosol                        | ATE           | 0,5 mg/l |        |        |

**Irritation and corrosivity**

Causes serious eye damage.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

Contains formaldehyde ... %. May produce an allergic reaction.

**Carcinogenic/mutagenic/toxic effects for reproduction**

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

Contains no ingredient listed as a carcinogen

**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.

**Specific effects in experiment on an animal**

No toxicology information is available.

**Additional information on tests**

None known.

**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.

**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.



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### 22419-26 EDTA Solution, 1M

Revision date: 26.04.2022

Product code: 2241926

Page 7 of 8

Creation date: 13.06.2005

#### **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.

### **SECTION 13: Disposal considerations**

#### **13.1. Waste treatment methods**

##### **Disposal recommendations**

In accordance with local and national regulations.

##### **List of Wastes Code - 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

##### **List of Wastes Code - 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

##### **List of Wastes Code - 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 relevant

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**22419-26 EDTA Solution, 1M**

Revision date: 26.04.2022

Product code: 2241926

Page 8 of 8

Creation date: 13.06.2005

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

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 28

**National regulatory information**

Water hazard class (D): 2 - obviously hazardous to water

**15.2. Chemical safety assessment**

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

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

Revision: 26.04.2022

Safety datasheet sections which have been updated: 2

Revision: 15.03.2021

Safety datasheet sections which have been updated: 7, 11

Revision: 11.09.2018

Safety datasheet sections which have been updated: 2, 7, 15, 16

Revision: 28.05.2015

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

Revision: 19.03.2015

Safety datasheet sections which have been updated: 3

Safety datasheet sections which have been updated: 15

**Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]**

| Classification   | Classification procedure |
|------------------|--------------------------|
| Eye Dam. 1; H318 | Calculation method       |

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

|        |  |
|--------|--|
| H301   | Toxic if swallowed.  |
| H302   | Harmful if swallowed.  |
| H311   | Toxic in contact with skin.                                    |
| H314   | Causes severe skin burns and eye damage.                       |
| H317   | May cause an allergic skin reaction.                           |
| H318   | Causes serious eye damage.                                     |
| H331   | Toxic if inhaled.  |
| H341   | Suspected of causing genetic defects.                          |
| H350   | May cause cancer.  |
| EUH208 | Contains formaldehyde ... %. May produce an allergic reaction. |

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance 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.)*