

Safety Data Sheet

according to Regulation (EC) No 1907/2006

28022-99 Monochlor F Reagent

Revision date: 03.11.2021

Product code: 2802299

Page 1 of 8

Creation date: 21.12.2006

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

28022-99 Monochlor F Reagent

UFI: YUGS-WJQP-X30W-N5K2

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:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1A

Hazard Statements:

Harmful if swallowed.

Causes severe skin burns and eye damage.

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

Lithium hydroxide

Sodium Nitroferrocyanide

Signal word: Danger

Pictograms:



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Hazard statements

- H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

Precautionary statements

- P270 Do not eat, drink or smoke when using this product.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
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.

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 | | | |
| 68-04-2 | tri-Sodium citrate | | | <50 % |
| | 200-675-3 | | | |
| 6106-24-7 | di-Sodium tartrate dihydrate | | | <30 % |
| | 212-773-3 | | | |
| 90-01-7 | 2-Hydroxybenzylalkohol | | | <20 % |
| | 201-960-5 | | | |
| | Skin Irrit. 2; H315 | | | |
| 1310-65-2 | Lithium hydroxide | | | 1,0-10,0 % |
| | 215-183-4 | | | |
| | Acute Tox. 3, Acute Tox. 3, Skin Corr. 1A; H331 H301 H314 | | | |
| 14402-89-2 | Sodium Nitroferrocyanide | | | <5,0 % |
| | 238-373-9 | | | |
| | Acute Tox. 3; H301 | | | |

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

SECTION 4: First aid measures

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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.
If symptoms persist, call a physician.

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

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

After ingestion

Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Obtain medical attention.

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

Fire may liberate hazardous vapours.

5.3. Advice for firefighters

In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.
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

Use mechanical handling equipment. Keep in suitable, closed containers for disposal.

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. Do not breathe vapours/dust.

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

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

Keep at temperatures between 10 and 25 °C.

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 ³ | fibres/ml | Category | Origin |
|-----------|-------------------|-----|-------------------|-----------|---------------|--------|
| 1310-65-2 | Lithium hydroxide | - | 1 | | 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.

The protective gloves to be used must comply with the specifications of EC directive 2016/425/EC and the resultant standard DIN EN ISO 374-1.

Skin protection

Avoid contact with skin, eyes and clothing.

Respiratory protection

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Provide appropriate exhaust ventilation at places where dust is formed.

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

| | | |
|----------------------|--------------|-------------------|
| Physical state: | powder | |
| Colour: | light yellow | |
| Odour: | odourless | |
| pH-Value (at 20 °C): | | no data available |

Changes in the physical state

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

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Flash point: not applicable

Flammability

Solid: no data available

Gas: no data available

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: no data available

Oxidizing properties

no data available

Vapour pressure: not applicable

Vapour pressure: not applicable

Density (at 20 °C): no data available

Bulk density: no data available

Water solubility:
(at 20 °C) no data available**Solubility in other solvents**

no data available

Partition coefficient: not applicable

Viscosity / dynamic: not applicable

Viscosity / kinematic: not applicable

Flow time: not applicable

Vapour density: not applicable

Evaporation rate: not applicable

Solvent separation test: not applicable

Solvent content: not applicable

9.2. Other information

Solid content: no data available

no data available

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

To avoid thermal decomposition, do not overheat.

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10.5. Incompatible materials

Acids, Oxidizing agents, Organic materials, Silver nitrate

10.6. Hazardous decomposition products

Cyanides

Further information

Stable under recommended storage conditions.

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

Harmful if swallowed.

No data is available on the product itself.

| CAS No | Chemical name | | | | |
|------------|--------------------------|----------------|---------|--------|--------|
| | Exposure route | Dose | Species | Source | Method |
| 1310-65-2 | Lithium hydroxide | | | | |
| | oral | LD50 210 mg/kg | Ratte | | |
| | inhalation vapour | ATE 3 mg/l | | | |
| | inhalation (4 h) aerosol | LC50 0,96 mg/l | Ratte | | |
| 14402-89-2 | Sodium Nitroferricyanide | | | | |
| | oral | LD50 99 mg/kg | rat | | |

Irritation and corrosivity

Causes severe skin burns and eye damage.

Sensitising effects

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

No known effect.

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.

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

STOT-repeated exposure

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

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

Aspiration hazard

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

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**

No data is available on the product itself.

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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

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 2680 |
| <u>14.2. UN proper shipping name:</u> | Lithium hydroxide, mixture |
| <u>14.3. Transport hazard class(es):</u> | 8 |
| <u>14.4. Packing group:</u> | II |

Inland waterways transport (ADN)

14.2. UN proper shipping name: Not tested

Other applicable information (inland waterways transport)

Not tested

Marine transport (IMDG)

| | |
|---|----------------------------|
| <u>14.1. UN number:</u> | UN 2680 |
| <u>14.2. UN proper shipping name:</u> | Lithium hydroxide, mixture |
| <u>14.3. Transport hazard class(es):</u> | 8 |
| <u>14.4. Packing group:</u> | II |
| Marine pollutant: | -- |
| EmS: | F-A, S-B |

Air transport (ICAO-TI/IATA-DGR)

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- 14.1. UN number:** UN 2680
14.2. UN proper shipping name: Lithium hydroxide, mixture
14.3. Transport hazard class(es): 8
14.4. Packing group: II

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

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****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: 03.11.2021

Safety datasheet sections which have been updated: 2, 7, 8, 11

Revision: 02.08.2018

Safety datasheet sections which have been updated: 7, 11, 15, 16

Revision: 30.04.2015

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 |
|---------------------|--------------------------|
| Acute Tox. 4; H302 | Calculation method |
| Skin Corr. 1A; H314 | Calculation method |

Relevant H and EUH statements (number and full text)

- H301 Toxic if swallowed.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H331 Toxic if inhaled.

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.)

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

1.1. Product identifier

2877436 Free Ammonia Chlorinating Solution

UFI: SYPD-4CAH-G11J-5E75

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

Use of the substance/mixture

Reagent for analysis

Uses advised against

Consumer use

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 Corr. 1A

Hazard Statements:

Causes severe skin burns and eye damage.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

sodium hydroxide; caustic soda

Signal word: Danger

Pictograms:



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Hazard statements

H314 Causes severe skin burns and eye damage.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing 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.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Additional advice on labelling

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

2.3. Other hazards

no data available

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 % |
| | 231-791-2 | |
| 7758-11-4 | di-potassium hydrogen phosphate | < 5,0 % |
| | 231-834-5 | |
| 1310-73-2 | sodium hydroxide; caustic soda | < 1,0 % |
| | 215-185-5 | 011-002-00-6 |
| | Skin Corr. 1A; H314 | |
| 7681-52-9 | sodium hypochlorite, solution ... % Cl active | < 0,1 % |
| | 231-668-3 | 017-011-00-1 |
| | Skin Corr. 1B, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H314 H318 H400 H410 EUH031 | |

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 | < 1,0 % |
| | | Skin Corr. 1A; H314: >= 5 - 100 Skin Corr. 1B; H314: >= 2 - < 5 Skin Irrit. 2; H315: >= 0,5 - < 2 Eye Irrit. 2; H319: >= 0,5 - < 2 | |
| 7681-52-9 | 231-668-3 | sodium hypochlorite, solution ... % Cl active | < 0,1 % |
| | | M akut; H400: M=10 M chron.; H410: M=1 EUH; EUH031: >= 5 - 100 | |

SECTION 4: First aid measures

4.1. Description of first aid measures

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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.
If symptoms persist, call a physician.

If not breathing, give artificial respiration.

After contact with skin

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

After contact with eyes

Immediately flush eye(s) with plenty of water. If eye irritation persists, consult a specialist.

After ingestion

Drink plenty of water. If you feel unwell, seek medical advice (show the label where possible).

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

Irritation and corrosion, Cough, Shortness of breath, Spasm, headache

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.

Extinguishing media: Water

Unsuitable extinguishing media

No Limit

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

Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Only qualified personnel equipped with suitable protective equipment may intervene. Immediately evacuate personnel to safe areas.

Do not breathe vapours, mist or gas.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local/national regulations (see section 13).

6.4. Reference to other sections

13. Disposal considerations

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Do not get in eyes.

Advice on protection against fire and explosion

None known.

See also section 5

Further information on handling

Observe label precautions.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep away from heat. 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

no data available

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 ³ | fibres/ml | Category | Origin |
|-----------|------------------|-----|-------------------|-----------|---------------|--------|
| 1310-73-2 | Sodium hydroxide | - | 2 | | STEL (15 min) | WEL |

Additional advice on limit values

None known.

Contains no substances with occupational exposure limit values.

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

Wash hands before breaks and after work.

General industrial hygiene practice.

Ensure that eye flushing systems and safety showers are located close to the working place.

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

Consult your supplier if the material is to be used for special applications such as in the food industry or for hygiene, medical or surgical end-use.

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Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Skin protection

Avoid contact with skin, eyes and clothing.

Respiratory protection

Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Environmental exposure controls

Do not flush into surface water or sanitary sewer system.
Prevent further leakage or spillage if safe to do so.

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): | 12,5 |

Changes in the physical state

| | |
|--|---------------------------|
| Melting point: | 0 °C |
| Initial boiling point and boiling range: | 100 °C |
| Sublimation point: | not applicable |
| Softening point: | not applicable |
| Pour point: | no data available |
| : | no data available |
| Flash point: | not applicable |
| Sustaining combustion: | Not sustaining combustion |

Flammability

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

Explosive properties

no data available

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

Auto-ignition temperature

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

Oxidizing properties

no data available

The product has been shown not to be oxidising in a test following Directive 67/548/EEC (Method A17, oxidising properties).

| | |
|-------------------|---------------------|
| Vapour pressure: | no data available |
| Vapour pressure: | no data available |
| Density: | 1 g/cm ³ |
| Bulk density: | not applicable |
| Water solubility: | no data available |

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Solubility in other solvents

no data available
soluble (Acid)

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

Corrosive in contact with metals (wenn pH Wert klein, bei Säuren)
no data available

Aluminium :

Mild steel: 204000 mm/a

Mild steel :

May be corrosive to metals.

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

Possibility of hazardous reactions: Acids, Metals, Peroxides

10.4. Conditions to avoid

Heat.

10.5. Incompatible materials

woven fabric, Organic materials, Metals

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

Further information

This information is not available.

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.

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| CAS No | Chemical name | | | | | |
|-----------|---------------------------------|---------------|------|---------|--------|--------|
| | Exposure route | Dose | | Species | Source | Method |
| 7758-11-4 | di-potassium hydrogen phosphate | | | | | |
| | oral | LD50 mg/kg | 8000 | rat | | |

Irritation and corrosivity

The product causes burns of eyes, skin and mucous membranes.

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

This information is not available.

Aspiration hazard

No aspiration toxicity classification

Specific effects in experiment on an animal

No toxicology information is available.

Additional information on tests

None known.

Practical experience
Other observations

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 information on ecology is available. 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 mg/l | 45,4 | 96 h | Onchorhynchus mykiss | | |
| 7681-52-9 | sodium hypochlorite, solution ... % Cl active | | | | | | |
| | Acute fish toxicity | LC50 mg/l | 0,065 | 96 h | | | |
| | Acute crustacea toxicity | EC50 mg/l | 0,032 | 48 h | Daphnia magna (Water flea) | | |

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.

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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

Ecological injuries are not known or expected under normal use.

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.

The hazard and precautionary statements displayed on the label also apply to any residues left in the container.

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)

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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



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

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

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

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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: 02.08.2018

Safety datasheet sections which have been updated: 2, 12, 15, 16

Revision: 27.03.2015

Safety datasheet sections which have been updated: 1-16

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

| Classification | Classification procedure |
|---------------------|--------------------------|
| Skin Corr. 1A; H314 | Calculation method |

Relevant H and EUH statements (number and full text)

| | |
|--------|---|
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |

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.

Training advice

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

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