

Safety Data Sheet

according to Regulation (EC) No 1907/2006

LCK 380 TOC/COT, Indikatorküvette/Indicator Cuvette; 1/4

Revision date: 06.01.2020

Product code: LCK380-1

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

LCK 380 TOC/COT, Indikatorküvette/Indicator Cuvette; 1/4

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**

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

2.2. Label elements**Additional advice on labelling**

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients**3.2. Mixtures**

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Hazardous components

| CAS No | Chemical name | | | Quantity |
|------------|--------------------------------|--------------|----------|----------|
| | EC No | Index No | REACH No | |
| | GHS Classification | | | |
| 7732-18-5 | Water | | | > 99 % |
| | 231-791-2 | | | |
| 7447-40-7 | Potassium chloride | | | < 0,1 % |
| | 231-211-8 | | | |
| 1310-73-2 | sodium hydroxide; caustic soda | | | < 0,1 % |
| | 215-185-5 | 011-002-00-6 | | |
| | Skin Corr. 1A; H314 | | | |
| 62625-21-2 | Thymolblue Sodium salt | | | < 0,1 % |
| | 263-650-6 | | | |

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

SECTION 4: First aid measures

4.1. Description of first aid measures**General information**

Take off all contaminated clothing immediately.

After inhalation

Move to fresh air.

After contact with skin

Wash off immediately with plenty of water.

After contact with eyes

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

After ingestion

Clean mouth with water and drink afterwards plenty of water.

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

No known effect.

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

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regulations.

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

Use personal protective equipment.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

13. Disposal considerations

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

Use only in well-ventilated areas.

Advice on protection against fire and explosion

See also section 5

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

Keep in a dry, cool place.

Hints on joint storage

None known.

7.3. Specific end use(s)

Reagent for analysis

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

| CAS No | Substance | ppm | mg/m ³ | 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:

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

Skin protection

Remove and wash contaminated clothing before re-use.

Respiratory protection

Breathing apparatus only if aerosol or dust is formed.

Recommended Filter type:

ABEK-filter

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

| | | |
|----------------------|-----------|----|
| Physical state: | liquid | |
| Colour: | blue | |
| Odour: | odourless | |
| pH-Value (at 20 °C): | | 10 |

Changes in the physical state

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

Flammability

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

Explosive properties

not applicable

| | |
|-------------------------|----------------|
| Lower explosion limits: | not applicable |
| Upper explosion limits: | not applicable |
| Ignition temperature: | not applicable |

Auto-ignition temperature

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

| | |
|----------------------------|----------------|
| Decomposition temperature: | not applicable |
|----------------------------|----------------|

Oxidizing properties

not applicable

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

Solubility in other solvents

soluble

| | |
|------------------------|-------------------|
| Partition coefficient: | no data available |
|------------------------|-------------------|

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| | |
|--------------------------|-------------------|
| 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**

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.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

Further information

None known.

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

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

No data is available on the product itself.

| CAS No | Chemical name | | | | |
|-----------|--------------------|---------------|---------|--------|--------|
| | Exposure route | Dose | Species | Source | Method |
| 7447-40-7 | Potassium chloride | | | | |
| | oral | LD50 mg/kg | 2600 | Ratte | RTECS |

Irritation and corrosivity

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

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

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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 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

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information**12.1. Toxicity**

No data is available on the product itself.

Do not flush into surface water or sanitary sewer system.

| CAS No | Chemical name | | | | | |
|-----------|--------------------------------|---------------|-----------|---------|---|--------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 7447-40-7 | Potassium chloride | | | | | |
| | Acute fish toxicity | LC50 | 920 mg/l | 96 h | Gambusia affinis (Mosquito fish) | IUCLID |
| | Acute algae toxicity | ErC50 mg/l | 2500 | 72 h | Pseudokirchneriella subcapitata (green algae) | IUCLID |
| | Acute crustacea toxicity | EC50 | 825 mg/l | 48 h | Daphnia magna (Water flea) | IUCLID |
| 1310-73-2 | sodium hydroxide; caustic soda | | | | | |
| | Acute fish toxicity | LC50 mg/l | 45,4 | 96 h | Onchorhynchus 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.

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

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

In accordance with local and national regulations. Our local agencies will accept used cuvettes to ensure their proper disposal.

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

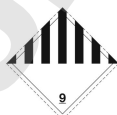
Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 3316
14.2. UN proper shipping name: Chemical kit
14.3. Transport hazard class(es): 9
14.4. Packing group: II
 Hazard label: 9



Classification code: M11
 Special Provisions: 251 340
 Limited quantity: SP251
 Excepted quantity: SP340
 Transport category: 2
 Hazard No: -
 Tunnel restriction code: E

Inland waterways transport (ADN)

Other applicable information (inland waterways transport)

Not tested

Marine transport (IMDG)

14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
 Hazard label: 9

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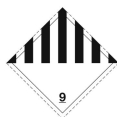
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Marine pollutant: -
 Special Provisions: 251, 340
 Limited quantity: See SP251
 Excepted quantity: SP340
 EmS: F-A, S-P

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
 Hazard label: 9



Special Provisions: A44 A163
 Limited quantity Passenger: 1 kg
 Passenger LQ: Y960
 Excepted quantity: E0
 IATA-packing instructions - Passenger: 960
 IATA-max. quantity - Passenger: 10 kg
 IATA-packing instructions - Cargo: 960
 IATA-max. quantity - Cargo: 10 kg

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

This product forms part of a kit. Information in this section relates to the kit as a whole.

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

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

National regulatory information

Water contaminating class (D): -- not water contaminating

15.2. Chemical safety assessment

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

SECTION 16: Other information**Changes**

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Revision Date 06.01.2020

Safety datasheet sections which have been updated: 11, 15

Revision Date 21.03.2017

Safety datasheet sections which have been updated: 2, 9, 14, 15

Relevant H and EUH statements (number and full text)

H314 Causes severe skin burns and 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.)

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LCK 380 TOC/COT, LCK 380 A; 2/4

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

LCK 380 TOC/COT, LCK 380 A; 2/4

CAS No: 7775-27-1

EC No: 231-892-1

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:

Oxidising solid: Ox. Sol. 3

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Resp. Sens. 1

Respiratory or skin sensitisation: Skin Sens. 1

Specific target organ toxicity - single exposure: STOT SE 3

Hazard Statements:

May intensify fire; oxidiser.

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

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

May cause an allergic skin reaction.

May cause respiratory irritation.

2.2. Label elements**Regulation (EC) No. 1272/2008**

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

| | |
|------|--|
| H272 | May intensify fire; oxidiser. |
| H302 | Harmful if swallowed. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H319 | Causes serious eye irritation. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |

Precautionary statements

| | |
|----------------|--|
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P301+P312 | IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P342+P311 | If experiencing respiratory symptoms: Call a POISON CENTER/doctor. |

Additional advice on labelling

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

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients**3.1. Substances****Hazardous components**

| CAS No | Chemical name | EC No | Index No | REACH No | Quantity |
|-----------|---|-----------|----------|----------|----------|
| 7775-27-1 | Sodium peroxodisulfate | 231-892-1 | | | 100 % |
| | Ox. Sol. 3, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3; H272 H302 H315 H319 H334 H317 H335 | | | | |

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.
Show this safety data sheet to the doctor in attendance.

After inhalation

Move to fresh air.
If skin irritation persists, call a physician.

After contact with skin

Wash off immediately with plenty of water.

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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.

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

Irritation and corrosion, irritant effects, Allergic reactions, 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

Oxidizing properties

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

Use mechanical handling equipment.

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.

Further information on handling

Use barrier skin cream.

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

Keep in a dry, cool place.

Keep at temperatures between 15 and 25 °C.

Hints on joint storage

Keep away from combustible material.

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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 ³ | fibres/ml | Category | Origin |
|-----------|--|-----|-------------------|-----------|-----------|--------|
| 7775-27-1 | (OLD) Disodium peroxodisulphate (measured as [S2O8]) | - | 1 | | TWA (8 h) | OES |

Additional advice on limit values

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

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

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.

Skin protection

Avoid contact with skin, eyes and clothing.

Respiratory protection

Breathing apparatus only if aerosol or dust is formed.

Recommended Filter type:

ABEK-filter

Environmental exposure controls

Do not flush into surface water or sanitary sewer system.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | | |
|----------------------|-----------|------------------|
| Physical state: | solid | |
| Colour: | white | |
| Odour: | odourless | |
| pH-Value (at 20 °C): | | 3,5-3,8 (100g/l) |

Changes in the physical state

Melting point: no data available

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| | |
|--|-------------------|
| Initial boiling point and boiling range: | not applicable |
| Sublimation point: | not applicable |
| Softening point: | not applicable |
| Pour point: | not applicable |
| Flash point: | not applicable |
| Sustaining combustion: | No data available |

Flammability

| | |
|--------|-------------------|
| Solid: | no data available |
| Gas: | no data available |

Explosive properties

no data available

| | |
|-------------------------|-----------------|
| Lower explosion limits: | not applicable |
| Upper explosion limits: | not applicable |
| Ignition temperature: | does not ignite |

Auto-ignition temperature

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

| | |
|----------------------------|----------------|
| Decomposition temperature: | approx. 180 °C |
|----------------------------|----------------|

Oxidizing properties

The substance or mixture is classified as oxidizing with the subcategory 3.

| | |
|---------------------------------|--------------------------------|
| Vapour pressure: | not applicable |
| Vapour pressure: | no data available |
| Density (at 20 °C): | 1,1 g/cm ³ |
| Bulk density: | approx. 1150 kg/m ³ |
| Water solubility: (at 20 °C) | 556 g/L |

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: | no data available |
| no data available | |

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

Reactivity Hazard: Oxidizing agents
Risk of dust explosion.

10.2. Chemical stability

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Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Reacts with the following substances: Reducing agents, Alcohols, Strong acids, Bases.

Keep away from combustible material.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Combustible material

Reducing agents

Bases

10.6. Hazardous decomposition products

Sulphur oxides

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 |
| 7775-27-1 | Sodium peroxodisulfate | | | | |
| | oral | LD50 mg/kg | 920 | rat | |
| | inhalation (4 h) aerosol | LC50 mg/l | > 5,1 | Merck | |

Irritation and corrosivity

Causes serious eye irritation.

Causes skin irritation.

Sensitising effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (Sodium peroxodisulfate)

May cause an allergic skin reaction. (Sodium peroxodisulfate)

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause respiratory irritation. (Sodium peroxodisulfate)

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

LD50/oral/rat = 920 mg/kg

Further information

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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

LCK 380 TOC/COT, LCK 380 A; 2/4

Revision date: 06.01.2020

Product code: LCK380-2

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SECTION 12: Ecological information

12.1. Toxicity

Do not flush into surface water or sanitary sewer system.

| CAS No | Chemical name | | | | | |
|-----------|--------------------------|------|-----------|---------|--|--------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 7775-27-1 | Sodium peroxodisulfate | | | | | |
| | Acute fish toxicity | LC50 | 771 mg/l | 96 h | Oncorhynchus mykiss (rainbow trout) | |
| | Acute crustacea toxicity | EC50 | 133 mg/l | 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.

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

Our local agencies will accept used cuvettes to ensure their proper disposal.
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)

| | |
|--|--------------|
| 14.1. UN number: | UN 3316 |
| 14.2. UN proper shipping name: | Chemical kit |
| 14.3. Transport hazard class(es): | 9 |
| 14.4. Packing group: | II |
| Hazard label: | 9 |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

LCK 380 TOC/COT, LCK 380 A; 2/4

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Classification code: M11
 Special Provisions: 251 340
 Limited quantity: SP251
 Excepted quantity: SP340
 Transport category: 2
 Hazard No: -
 Tunnel restriction code: E

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

Not tested

Marine transport (IMDG)

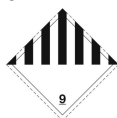
14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
 Hazard label: 9



Marine pollutant: -
 Special Provisions: 251, 340
 Limited quantity: See SP251
 Excepted quantity: SP340
 EmS: F-A, S-P

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
 Hazard label: 9



Special Provisions: A44 A163
 Limited quantity Passenger: 1 kg
 Passenger LQ: Y960
 Excepted quantity: E0
 IATA-packing instructions - Passenger: 960
 IATA-max. quantity - Passenger: 10 kg
 IATA-packing instructions - Cargo: 960
 IATA-max. quantity - Cargo: 10 kg

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Use personal protective equipment.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

LCK 380 TOC/COT, LCK 380 A; 2/4

Revision date: 06.01.2020

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

Not relevant

Other applicable information

This product forms part of a kit. Information in this section relates to the kit as a whole.

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

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

National regulatory information

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

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information**Changes**

Revision Date 06.01.2020

Safety datasheet sections which have been updated: 11,15

Revision Date 21.03.2017

Safety datasheet sections which have been updated: 2, 9, 14, 15

Relevant H and EUH statements (number and full text)

| | |
|------|---|
| H272 | May intensify fire; oxidiser. |
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled . |
| H335 | May cause respiratory 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.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

LCK 380 TOC/COT, TC-Küvette/TC-Cuvette/TC-Cuve; 3/4

Revision date: 06.01.2020

Product code: LCK380-3

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

LCK 380 TOC/COT, TC-Küvette/TC-Cuvette/TC-Cuve; 3/4

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 Corr. 1

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

Causes severe skin burns and eye damage.

Causes serious eye damage.

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

Lithium hydroxide

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

H314

Causes severe skin burns and eye damage.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

LCK 380 TOC/COT, TC-Küvette/TC-Cuvette/TC-Cuve; 3/4

Revision date: 06.01.2020

Product code: LCK380-3

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Precautionary statements

- P280 Wear protective gloves/protective clothing/eye protection/face 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.
 P310 Immediately call a POISON CENTER/doctor.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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 | | | > 95 % |
| | 231-791-2 | | | |
| 1310-65-2 | Lithium hydroxide | | | < 2 % |
| | 215-183-4 | | | |
| | Acute Tox. 3, Acute Tox. 3, Skin Corr. 1A; H331 H301 H314 | | | |
| 7757-82-6 | Sodium sulfate | | | < 1 % |
| | 231-820-9 | | | |

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 for at least 15 minutes.
 If skin irritation persists, call a physician.

After contact with eyes

Immediately flush eye(s) with plenty of water. Consult a physician.

After ingestion

Rinse mouth. Immediately give large quantities of water to drink.
 Consult a physician.

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

Irritation and corrosion

Safety Data Sheet

according to Regulation (EC) No 1907/2006

LCK 380 TOC/COT, TC-Küvette/TC-Cuvette/TC-Cuve; 3/4

Revision date: 06.01.2020

Product code: LCK380-3

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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 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

Use mechanical handling equipment.

Flush with plenty of water.

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.

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.

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 |

8.2. Exposure controls**Appropriate engineering controls**

The type of protective equipment must be selected according to the concentration and amount of the

Safety Data Sheet

according to Regulation (EC) No 1907/2006

LCK 380 TOC/COT, TC-Küvette/TC-Cuvette/TC-Cuve; 3/4

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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

Take off contaminated clothing and shoes immediately.

Respiratory protection

Breathing apparatus only if aerosol or dust is formed.

Recommended Filter type:

ABEK-filter

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

| | | |
|--|-------------------|-------------------|
| Physical state: | liquid | |
| Colour: | colourless, clear | |
| Odour: | odourless | |
| pH-Value (at 20 °C): | | 14 |
| Changes in the physical state | | |
| Melting point: | | no data available |
| Initial boiling point and boiling range: | | not applicable |
| Sublimation point: | | not applicable |
| Softening point: | | not applicable |
| Pour point: | | not applicable |
| : | | no data available |
| Flash point: | | not applicable |
| Sustaining combustion: | | No data available |
| Flammability | | |
| Solid: | | not applicable |
| Gas: | | not applicable |
| Explosive properties | | |
| not applicable | | |
| Lower explosion limits: | | not applicable |
| Upper explosion limits: | | not applicable |
| Ignition temperature: | | not applicable |
| Auto-ignition temperature | | |
| Solid: | | not applicable |
| Gas: | | not applicable |
| Decomposition temperature: | | not applicable |
| Oxidizing properties | | |
| not applicable | | |
| Vapour pressure: | | no data available |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

LCK 380 TOC/COT, TC-Küvette/TC-Cuvette/TC-Cuve; 3/4

Revision date: 06.01.2020

Product code: LCK380-3

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| | |
|--|---------------------|
| Vapour pressure: | no data available |
| Density (at 20 °C): | 1 g/cm ³ |
| Bulk density: | not applicable |
| Water solubility: (at 20 °C) | completely soluble |
| Solubility in other solvents soluble | |
| 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**

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

Stable under recommended storage conditions.

10.5. Incompatible materials

Alkali metals

10.6. Hazardous decomposition products

No decomposition if used as directed.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**Based on available data, the classification criteria are not met.
No data is available on the product itself.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

LCK 380 TOC/COT, TC-Küvette/TC-Cuvette/TC-Cuve; 3/4

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| CAS No | Chemical name | | | | |
|-----------|--------------------------|---------------|-----------|--------|--------|
| | Exposure route | Dose | Species | Source | Method |
| 1310-65-2 | Lithium hydroxide | | | | |
| | oral | LD50 mg/kg | 210 | Ratte | |
| | inhalation vapour | ATE | 3 mg/l | | |
| | inhalation (4 h) aerosol | LC50 | 0,96 mg/l | Ratte | |
| 7757-82-6 | Sodium sulfate | | | | |
| | oral | LD50 mg/kg | 5989 | mouse | |

Irritation and corrosivity

Causes severe skin burns and eye damage.
Causes serious eye damage.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

Specific effects in experiment on an animal

No toxicology information is available.

Further information

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information**12.1. Toxicity**

Do not let product enter drains.

| CAS No | Chemical name | | | | | |
|-----------|--------------------------|--------------|-----------|---------|------------------|--------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 7757-82-6 | Sodium sulfate | | | | | |
| | Acute fish toxicity | LC50 | 120 mg/l | 96 h | Gambusia affinis | Merck |
| | Acute crustacea toxicity | EC50 mg/l | 2564 | 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.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

LCK 380 TOC/COT, TC-Küvette/TC-Cuvette/TC-Cuve; 3/4

Revision date: 06.01.2020

Product code: LCK380-3

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SECTION 13: Disposal considerations

13.1. Waste treatment methods**Disposal recommendations**

Our local agencies will accept used cuvettes to ensure their proper disposal.
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

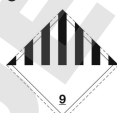
List of Wastes Code - contaminated packaging

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)

14.1. UN number: UN 3316
14.2. UN proper shipping name: Chemical kit
14.3. Transport hazard class(es): 9
14.4. Packing group: II
 Hazard label: 9



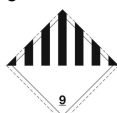
Classification code: M11
 Special Provisions: 251 340
 Limited quantity: SP251
 Excepted quantity: SP340
 Transport category: 2
 Hazard No: -
 Tunnel restriction code: E

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

Not tested

Marine transport (IMDG)

14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
 Hazard label: 9



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according to Regulation (EC) No 1907/2006

LCK 380 TOC/COT, TC-Küvette/TC-Cuvette/TC-Cuve; 3/4

Revision date: 06.01.2020

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Marine pollutant: -
 Special Provisions: 251, 340
 Limited quantity: See SP251
 Excepted quantity: SP340
 EmS: F-A, S-P

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
 Hazard label: 9



Special Provisions: A44 A163
 Limited quantity Passenger: 1 kg
 Passenger LQ: Y960
 Excepted quantity: E0
 IATA-packing instructions - Passenger: 960
 IATA-max. quantity - Passenger: 10 kg
 IATA-packing instructions - Cargo: 960
 IATA-max. quantity - Cargo: 10 kg

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

This product forms part of a kit. Information in this section relates to the kit as a whole.

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

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

National regulatory information

Water contaminating class (D): -- not water contaminating

15.2. Chemical safety assessment

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

SECTION 16: Other information**Changes**

Revision Date 06.01.2020

Safety datasheet sections which have been updated: 11, 15

Revision Date 7.02.2018

Safety datasheet sections which have been updated: 2, 11

Safety Data Sheet

according to Regulation (EC) No 1907/2006

LCK 380 TOC/COT, TC-Küvette/TC-Cuvette/TC-Cuve; 3/4

Revision date: 06.01.2020

Product code: LCK380-3

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Revision Date 21.03.2017

Safety datasheet sections which have been updated: 2, 7, 9, 11, 14, 15

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

| Classification | Classification procedure |
|--------------------|--------------------------|
| Skin Corr. 1; H314 | On basis of test data |
| Eye Dam. 1; H318 | On basis of test data |

Relevant H and EUH statements (number and full text)

| | |
|------|--|
| H301 | Toxic if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |
| 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.)

Safety Data Sheet

according to Regulation (EC) No 1907/2006

LCK 380 TOC/COT, TIC-Küvette/TIC-Cuvette/TIC-Cuve; 4/4

Revision date: 06.01.2020

Product code: LCK380-4

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

LCK 380 TOC/COT, TIC-Küvette/TIC-Cuvette/TIC-Cuve; 4/4

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 Irrit. 2

Hazard Statements:

Causes serious eye irritation.

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

Potassium dihydrogen phosphate

Signal word: Warning**Pictograms:****Hazard statements**

H319

Causes serious eye irritation.

Precautionary statements

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

Safety Data Sheet

according to Regulation (EC) No 1907/2006

LCK 380 TOC/COT, TIC-Küvette/TIC-Cuvette/TIC-Cuve; 4/4

Revision date: 06.01.2020

Product code: LCK380-4

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P337+P313

present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Additional advice on labelling

Not a hazardous substance or mixture according to 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 | | | > 80 % |
| | 231-791-2 | | | |
| 7778-77-0 | Potassium dihydrogen phosphate | | | > 10 % |
| | 231-913-4 | | 01-2119490224-41 | |
| | Acute Tox. 4, Eye Irrit. 2; H302 H319 | | | |
| 6381-92-6 | Ethylenedinitrilotetraacetic acid disodium salt dihydrate | | | < 5 % |
| | 205-358-3 | | | |
| | Eye Irrit. 2; H319 | | | |

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.

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

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product itself does not burn.

5.2. Special hazards arising from the substance or mixture

Fire may liberate hazardous vapours.

5.3. Advice for firefighters

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

Additional information

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

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

6.4. Reference to other sections

13. Disposal considerations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas.

Advice on protection against fire and explosion

See also section 5

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in a dry, cool place.

Hints on joint storage

None known.

7.3. Specific end use(s)

Reagent for analysis

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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

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Hand protection

Use barrier skin cream.

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

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

Skin protection

Remove and wash contaminated clothing before re-use.

Respiratory protection

Breathing apparatus only if aerosol or dust is formed.

Recommended Filter type:

ABEK-filter

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

| | | |
|----------------------|------------|---|
| Physical state: | liquid | |
| Colour: | colourless | |
| Odour: | odourless | |
| pH-Value (at 20 °C): | | 5 |

Changes in the physical state

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

Flammability

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

Explosive properties

not applicable

| | |
|-------------------------|----------------|
| Lower explosion limits: | not applicable |
| Upper explosion limits: | not applicable |
| Ignition temperature: | not applicable |

Auto-ignition temperature

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

| | |
|----------------------------|----------------|
| Decomposition temperature: | not applicable |
|----------------------------|----------------|

Oxidizing properties

not applicable

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

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Solubility in other solvents

soluble

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**

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

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

Further information

None known.

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

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

No data is available on the product itself.

| CAS No | Chemical name | | | | |
|-----------|---|---------------|---------|--------|--------|
| | Exposure route | Dose | Species | Source | Method |
| 7778-77-0 | Potassium dihydrogen phosphate | | | | |
| | oral | LD50 mg/kg | 1700 | mouse | |
| | dermal | LD50 mg/kg | 4640 | rabbit | |
| 6381-92-6 | Ethylenedinitrilotetraacetic acid disodium salt dihydrate | | | | |
| | oral | LD50 mg/kg | >2000 | rat | |

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Irritation and corrosivity

Causes serious eye irritation.

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

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

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

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information**12.1. Toxicity**

No data is available on the product itself.

Do not flush into surface water or sanitary sewer system.

| CAS No | Chemical name | | | | | |
|-----------|---|-------|-------------|---------|-----------------------------|--------|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 6381-92-6 | Ethylenedinitrilotetraacetic acid disodium salt dihydrate | | | | | |
| | Acute fish toxicity | LC50 | 320 mg/l | 96 h | Poecilia reticulata (guppy) | IUCLID |
| | Acute algae toxicity | ErC50 | 10-100 mg/l | 72 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.

Further information

no data available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

In accordance with local and national regulations. Our local agencies will accept used cuvettes to ensure their proper disposal.

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

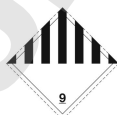
Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 3316
14.2. UN proper shipping name: Chemical kit
14.3. Transport hazard class(es): 9
14.4. Packing group: II
 Hazard label: 9



Classification code: M11
 Special Provisions: 251 340
 Limited quantity: SP251
 Excepted quantity: SP340
 Transport category: 2
 Hazard No: -
 Tunnel restriction code: E

Inland waterways transport (ADN)

Other applicable information (inland waterways transport)

Not tested

Marine transport (IMDG)

14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
 Hazard label: 9

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Marine pollutant: -
 Special Provisions: 251, 340
 Limited quantity: See SP251
 Excepted quantity: SP340
 EmS: F-A, S-P

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3316
14.2. UN proper shipping name: CHEMICAL KIT
14.3. Transport hazard class(es): 9
14.4. Packing group: II
 Hazard label: 9



Special Provisions: A44 A163
 Limited quantity Passenger: 1 kg
 Passenger LQ: Y960
 Excepted quantity: E0
 IATA-packing instructions - Passenger: 960
 IATA-max. quantity - Passenger: 10 kg
 IATA-packing instructions - Cargo: 960
 IATA-max. quantity - Cargo: 10 kg

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

This product forms part of a kit. Information in this section relates to the kit as a whole.

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

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

15.2. Chemical safety assessment

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

SECTION 16: Other information**Changes**

Revision Date 06.01.2020

Safety datasheet sections which have been updated: 11,15

Revision Date 28.08.2017

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

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Revision Date 21.03.2017

Safety datasheet sections which have been updated: 2, 9, 14

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

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

Relevant H and EUH statements (number and full text)

H302 Harmful if swallowed.
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.)