

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Cyanide stock solution 10 mg cyanide/l in sodium hydroxide solution 0.1 mol/l

Revision date: 02.09.2022

Product code: 04670

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

Cyanide stock solution 10 mg cyanide/l in sodium hydroxide solution 0.1 mol/l

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

Laboratory chemical

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household). No data available

1.3. Details of the supplier of the safety data sheet

| | | |
|-------------------------|----------------------------------|------------------------------|
| Company name: | AnalytiChem GmbH | |
| Street: | Stempelstraße 6 | |
| Place: | D-47167 Duisburg | |
| Telephone: | 0203/5194-0 | Telefax: 0203/5194-290 |
| e-mail: | info@analytichem.de | |
| Contact person: | Abteilung Produktsicherheit | Telephone: 0203/5194-107/117 |
| e-mail: | produktsicherheit@analytichem.de | |
| Internet: | www.analytichem.de | |
| Responsible Department: | Abteilung Produktsicherheit | |

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Further Information

This product is a mixture. REACH Registration Number see section 3.

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

Met. Corr. 1; H290

Full text of hazard statements: see SECTION 16.

2.2. Label elements**Regulation (EC) No 1272/2008****Signal word:** Warning**Pictograms:****Hazard statements**

H290 May be corrosive to metals.

Precautionary statements

| | |
|------|--|
| P234 | Keep only in original packaging. |
| P390 | Absorb spillage to prevent material damage. |
| P406 | Store in a corrosion-resistant container with a resistant inner liner. |

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2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures in aqueous solution

Hazardous components

| CAS No | Chemical name | | | Quantity |
|-----------|---|--------------|------------------|----------|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 1310-73-2 | sodium hydroxide | | | < 1 % |
| | 215-185-5 | 011-002-00-6 | 01-2119457892-27 | |
| | Met. Corr. 1, Skin Corr. 1A; H290 H314 | | | |

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

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|-----------|--|------------------|----------|
| | Specific Conc. Limits, M-factors and ATE | | |
| 1310-73-2 | 215-185-5 | sodium hydroxide | < 1 % |
| | 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 | | |

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No data available

After inhalation

Provide fresh air.

After contact with skin

Take off immediately all contaminated clothing and wash it before reuse.
Wash immediately with: Water

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.
In case of eye irritation consult an ophthalmologist.
Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Rinse mouth immediately and drink plenty of water.
Call a doctor if you feel unwell.

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

Irritant

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

No data available

SECTION 5: Firefighting measures

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5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Non-combustible liquids

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

Avoid contact with skin, eyes and clothes.

Additional information

Suppress gases/vapours/mists with water spray jet.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Corrosive to metals.

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

No special environmental measures are necessary.

6.3. Methods and material for containment and cleaning up

For containment

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Read label before use.

Do not breathe vapour/aerosol.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

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Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Further information on handling

Take off immediately all contaminated clothing and wash it before reuse.
If handled uncovered, arrangements with local exhaust ventilation have to be used.
Draw up and observe skin protection programme. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.
Unsuitable container/equipment material:
Metal
Aluminium
Tin
Zinc

Further information on storage conditions

Store in a dry place.
storage temperature: +15°C - +25°C.

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

| CAS No | Substance | ppm | mg/m ³ | fib/cm ³ | Category | Origin |
|-----------|------------------|-----|-------------------|---------------------|---------------|--------|
| 1310-73-2 | Sodium hydroxide | - | 2 | | STEL (15 min) | |

DNEL/DMEL values

| CAS No | Substance | Exposure route | Effect | Value |
|--------------------------|------------------|----------------|--------|---------------------|
| 1310-73-2 | sodium hydroxide | | | |
| Worker DNEL, long-term | | inhalation | local | 1 mg/m ³ |
| Consumer DNEL, long-term | | inhalation | local | 1 mg/m ³ |

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.
If handled uncovered, arrangements with local exhaust ventilation have to be used.
Do not breathe vapour/aerosol.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear eye/face protection.
Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is

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recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Trade name/designation: KCL 741 Dermatril® L
Recommended material: NBR (Nitrile rubber) 0,11 mm
Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCL 741 Dermatril® L
Recommended material: NBR (Nitrile rubber) 0,11 mm
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Wear suitable protective clothing.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | | |
|---|----------------|----------------|
| Physical state: | Liquid | |
| Colour: | colourless | |
| Odour: | odourless | |
| Odour threshold: | not determined | |
| Melting point/freezing point: | | not determined |
| Boiling point or initial boiling point and boiling range: | | not determined |
| Flammability | | |
| Solid/liquid: | | not applicable |
| Gas: | | not applicable |
| Lower explosion limits: | | not determined |
| Upper explosion limits: | | not determined |
| Flash point: | | X |
| Auto-ignition temperature: | | not determined |
| Decomposition temperature: | | not determined |
| pH-Value: | | alkaline |
| Viscosity / kinematic: | | not determined |
| Water solubility: | | very soluble |
| Solubility in other solvents | | |
| not determined | | |
| Partition coefficient n-octanol/water: | | not determined |

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| | |
|--------------------------|-------------------------|
| Vapour pressure: | not determined |
| Vapour pressure: | not determined |
| Density: | 1,016 g/cm ³ |
| Bulk density: | not determined |
| Relative vapour density: | not determined |

9.2. Other information

Information with regard to physical hazard classes

| | |
|---------------------------|-------------------|
| Explosive properties | not determined |
| Sustaining combustion: | No data available |
| Self-ignition temperature | |
| Solid: | not applicable |
| Gas: | not applicable |
| Oxidizing properties | |
| Not oxidising. | |

Other safety characteristics

| | |
|--------------------------|----------------|
| Evaporation rate: | not determined |
| Solvent separation test: | not determined |
| Solvent content: | 0 |
| Solid content: | 0 |
| Sublimation point: | not determined |
| Softening point: | not determined |
| Pour point: | not determined |
| not determined: | |
| Viscosity / dynamic: | not determined |
| Flow time: | not determined |

Further Information

Corrosive to metals.

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive to metals.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

Metal
Aluminium
Tin
Zinc

10.6. Hazardous decomposition products

No known hazardous decomposition products.

Further information

No data available

SECTION 11: Toxicological information

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11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicokinetics, metabolism and distribution

There are no data available on the mixture itself.

Acute toxicity

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

Irritation and corrosivity

Based on available data, the classification criteria are not met.
slightly irritant but not relevant for classification.

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

There are no data available on the mixture itself.

Additional information on tests

There are no data available on the mixture itself.

Practical experience

There are no data available on the mixture itself.

11.2. Information on other hazards

Other information

There are no data available on the mixture itself.

Further information

There are no data available on the mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.

| CAS No | Chemical name | | | | | | |
|-----------|--------------------------|--------------|-----------|---------|------------------|--|--|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method | |
| 1310-73-2 | sodium hydroxide | | | | | | |
| | Acute crustacea toxicity | EC50 mg/l | 40,4 | 48 h | Ceriodaphnia sp. | Ecotoxicology and Environmental Safety,4 | other: acute 48-h immobilization test ac |

12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

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12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

There are no data available on the mixture itself.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

SECTION 14: Transport information

Land transport (ADR/RID)

| | |
|--|---------------------------|
| 14.1. UN number or ID number: | UN 1824 |
| 14.2. UN proper shipping name: | SODIUM HYDROXIDE SOLUTION |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | III |
| Hazard label: | 8 |
| Classification code: | C5 |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |
| Transport category: | 3 |
| Hazard No: | 80 |
| Tunnel restriction code: | E |

Inland waterways transport (ADN)

| | |
|--|---------------------------|
| 14.1. UN number or ID number: | UN 1824 |
| 14.2. UN proper shipping name: | SODIUM HYDROXIDE SOLUTION |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | III |
| Hazard label: | 8 |
| Classification code: | C5 |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |

Marine transport (IMDG)

| | |
|--|---------------------------|
| 14.1. UN number or ID number: | UN 1824 |
| 14.2. UN proper shipping name: | SODIUM HYDROXIDE SOLUTION |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | III |
| Hazard label: | 8 |
| Special Provisions: | 223 |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |
| EmS: | F-A, S-B |
| Segregation group: | alkalis |

Air transport (ICAO-TI/IATA-DGR)

| | |
|--|---------------------------|
| 14.1. UN number or ID number: | UN 1824 |
| 14.2. UN proper shipping name: | SODIUM HYDROXIDE SOLUTION |
| 14.3. Transport hazard class(es): | 8 |

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| | | |
|--|---------|------|
| 14.4. Packing group: | III | |
| Hazard label: | 8 | |
| Special Provisions: | A3 A803 | |
| Limited quantity Passenger: | 1 L | |
| Passenger LQ: | Y841 | |
| Excepted quantity: | E1 | |
| IATA-packing instructions - Passenger: | | 852 |
| IATA-max. quantity - Passenger: | | 5 L |
| IATA-packing instructions - Cargo: | | 856 |
| IATA-max. quantity - Cargo: | | 60 L |

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: strongly corrosive.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 75

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Water hazard class (D): - - non-hazardous to water

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,6,9,12.

Abbreviations and acronyms

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service
- LC50: Lethal concentration, 50%
- LD50: Lethal dose, 50%

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

| | |
|--------------------|--------------------------|
| Classification | Classification procedure |
| Met. Corr. 1; H290 | On basis of test data |

Relevant H and EUH statements (number and full text)

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

Further Information

The above information describes exclusively the safety requirements of the product and is based on our

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present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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