

Safety Data Sheet

according to UK REACH Regulation

Color reference solution GG (yellowish green) Reag. Ph. Eur., chapter 2.2.2

Revision date: 25.09.2023

Product code: 22764

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

1.1. Product identifier

Color reference solution GG (yellowish green) Reag. Ph. Eur., chapter 2.2.2

UFI: UD11-V21T-N00J-X8PU

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

Use of the substance/mixture

Laboratory chemicals

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).

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

inapplicable, this product is a mixture REACH registration number see section 3

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Met. Corr. 1; H290
Eye Dam. 1; H318
Skin Sens. 1; H317
Carc. 1B; H350i
Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

Iron(III) chloride hexahydrate
Hydrochloric acid
Cobalt(II) chloride hexahydrate

Signal word: Danger

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Pictograms:



Hazard statements

| | |
|-------|--|
| H290 | May be corrosive to metals. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H350i | May cause cancer by inhalation. |
| H412 | Harmful to aquatic life with long lasting effects. |

Precautionary statements

| | |
|----------------|--|
| P201 | Obtain special instructions before use. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P310 | Immediately call a POISON CENTER/doctor. |

Special labelling of certain mixtures

Restricted to professional users.

2.3. Other hazards

No data 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 (GB CLP Regulation) | | | |
| 10025-77-1 | Iron(III) chloride hexahydrate | | | 1 - < 5 % |
| | 231-729-4 | | 01-2119497998-05 | |
| | Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1; H302 H315 H318 H317 | | | |
| 7647-01-0 | Hydrochloric acid | | | 1 - < 5 % |
| | 231-595-7 | 017-002-01-X | 01-2119484862-27 | |
| | Skin Corr. 1B, STOT SE 3; H314 H335 | | | |
| 7758-99-8 | copper sulphate pentahydrate | | | < 1 % |
| | 231-847-6 | 029-023-00-4 | 01-2119520566-40 | |
| | Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H302 H315 H318 H400 H410 | | | |
| 7791-13-1 | Cobalt(II) chloride hexahydrate | | | < 0.1 % |
| | 231-589-4 | 027-004-00-5 | 01-2119517584-37 | |
| | Carc. 1B, Muta. 2, Repr. 1B, Acute Tox. 4, Resp. Sens. 1, Skin Sens. 1, Aquatic Acute 1, Aquatic Chronic 1; H350i H341 H360F H302 H334 H317 H400 H410 | | | |

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

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Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|------------|-----------|--|-----------|
| | | Specific Conc. Limits, M-factors and ATE | |
| 10025-77-1 | 231-729-4 | Iron(III) chloride hexahydrate | 1 - < 5 % |
| | | dermal: LD50 = > 2000 mg/kg; oral: LD50 = 500 mg/kg | |
| 7647-01-0 | 231-595-7 | Hydrochloric acid | 1 - < 5 % |
| | | Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 25 STOT SE 3; H335: >= 10 - 100 | |
| 7758-99-8 | 231-847-6 | copper sulphate pentahydrate | < 1 % |
| | | dermal: LD50 = > 2000 mg/kg; oral: ATE 481 mg/kg Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=1 | |
| 7791-13-1 | 231-589-4 | Cobalt(II) chloride hexahydrate | < 0.1 % |
| | | dermal: LD50 = > 2000 mg/kg; oral: LD50 = 537 mg/kg Carc. 1B; H350i: >= 0,01 - 100 Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=10 | |

Further Information

No data available

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection!

After inhalation

Provide fresh air.
Call a physician immediately.

After contact with skin

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

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.
Remove contact lenses, if present and easy to do. Continue rinsing.
Protect uninjured eye.

After ingestion

Rinse mouth immediately and drink plenty of water.
Call a physician immediately.

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

Irritant
Allergic reactions
Gastrointestinal complaints

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

no restriction

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5.2. Special hazards arising from the substance or mixture

Non-combustible liquids
Hazardous combustion products
In case of fire may be liberated:
Metal oxide smoke, toxic
Hydrogen chloride (HCl)

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.
In case of fire and/or explosion do not breathe fumes.
Avoid contact with skin, eyes and clothes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Move undamaged containers from immediate hazard area if it can be done safely.
Use water spray jet to protect personnel and to cool endangered containers.

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
Consult an expert
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

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.
Prevent spread over a wide area (e.g. by containment or oil barriers).
Collect in closed and suitable containers for disposal.
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

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Advice on safe handling

Avoid exposure - obtain special instructions before use.
Read label before use. Handle and open container with care.
When using do not eat, drink, smoke, sniff. Use personal protection equipment.
Provide adequate ventilation. Avoid contact with skin, eyes and clothes.
Do not breathe vapour/aerosol. If handled uncovered, arrangements with local exhaust ventilation have to be used.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs. 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. Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

Further information on handling

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

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Store in a well-ventilated place. Keep container tightly closed.
Store in a place accessible by authorized persons only.

Hints on joint storage

national regulations

Further information on storage conditions

Store in a dry place.

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m ³ | fibres/ml | Category | Origin |
|-----------|---|-----|-------------------|-----------|---------------|--------|
| 7647-01-0 | Hydrogen chloride (gas and aerosol mists) | 1 | 2 | | TWA (8 h) | WEL |
| | | 5 | 8 | | STEL (15 min) | WEL |

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DNEL/DMEL values

| CAS No | Substance | | |
|--------------------------|---------------------------------|----------|----------------------|
| DNEL type | Exposure route | Effect | Value |
| 10025-77-1 | Iron(III) chloride hexahydrate | | |
| Worker DNEL, long-term | dermal | systemic | 2,8 mg/kg bw/day |
| Consumer DNEL, long-term | dermal | systemic | 1,4 mg/kg bw/day |
| Consumer DNEL, long-term | oral | systemic | 0,28 mg/kg bw/day |
| Consumer DNEL, acute | oral | systemic | 20 mg/kg bw/day |
| 7647-01-0 | Hydrochloric acid | | |
| Worker DNEL, long-term | inhalation | local | 8 mg/m ³ |
| Worker DNEL, acute | inhalation | local | 15 mg/m ³ |
| Consumer DNEL, long-term | inhalation | local | 8 mg/m ³ |
| Consumer DNEL, acute | inhalation | local | 15 mg/m ³ |
| 7791-13-1 | Cobalt(II) chloride hexahydrate | | |
| Consumer DNEL, long-term | oral | systemic | 0,12 mg/kg bw/day |

PNEC values

| CAS No | Substance | |
|--|---------------------------------|--|
| Environmental compartment | Value | |
| 7758-99-8 | copper sulphate pentahydrate | |
| Freshwater | 0,0078 mg/l | |
| Marine water | 0,0052 mg/l | |
| Freshwater sediment | 87 mg/kg | |
| Marine sediment | 676 mg/kg | |
| Micro-organisms in sewage treatment plants (STP) | 0,23 mg/l | |
| Soil | 65 mg/kg | |
| 7791-13-1 | Cobalt(II) chloride hexahydrate | |
| Freshwater | 0,0006 mg/l | |
| Marine water | 0,00236 mg/l | |
| Freshwater sediment | 9,5 mg/kg | |
| Marine sediment | 9,5 mg/kg | |
| Micro-organisms in sewage treatment plants (STP) | 0,37 mg/l | |
| Soil | 10,9 mg/kg | |

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.

Individual protection measures, such as personal protective equipment

Eye/face protection

goggles

Wear eye/face protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four

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

Suitable examples are gloves of KCL GmbH, D-36124 Eichenzell, e-mail: vertrieb@kcl.de with the following specification (test according to EN 374):

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. Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

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: | yellow -green | |
| Odour: | odourless | |
| Melting point/freezing point: | | No data available |
| Boiling point or initial boiling point and boiling range: | | No data available |
| Flammability: | | No data available |
| Lower explosion limits: | | No data available |
| Upper explosion limits: | | No data available |
| Flash point: | | No data available |
| Auto-ignition temperature: | | No data available |
| Decomposition temperature: | | No data available |
| pH-Value: | | 0,5 |
| Viscosity / kinematic: | | No data available |
| Water solubility: | | completely miscible |
| Solubility in other solvents | | |
| No data available | | |
| Partition coefficient n-octanol/water: | | No data available |

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| | |
|--------------------------|--------------------------|
| Vapour pressure: | No data available |
| Vapour pressure: | No data available |
| Density: | 1,0252 g/cm ³ |
| Bulk density: | No data available |
| Relative vapour density: | No data available |

9.2. Other information

Information with regard to physical hazard classes

| | |
|---------------------------|-------------------|
| Explosive properties | No data available |
| Sustaining combustion: | No data available |
| Self-ignition temperature | No data available |
| Solid: | No data available |
| Gas: | No data available |
| Oxidizing properties | |
| Oxidizing | |

Other safety characteristics

| | |
|--------------------------|-------------------|
| Evaporation rate: | No data available |
| Solvent separation test: | No data available |
| Solvent content: | 0 |
| Solid content: | 0 |
| Sublimation point: | No data available |
| Softening point: | No data available |
| Pour point: | No data available |
| No data available: | |
| Viscosity / dynamic: | No data available |
| Flow time: | No data available |

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

10.6. Hazardous decomposition products

In case of fire may be liberated:
SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

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Toxicokinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

Acute toxicity

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

| CAS No | Chemical name | | | | |
|------------|---------------------------------|-------------------|---------|---|--------------------|
| | Exposure route | Dose | Species | Source | Method |
| 10025-77-1 | Iron(III) chloride hexahydrate | | | | |
| | oral | LD50 500 mg/kg | Rat | Study report (2004) | OECD Guideline 423 |
| | dermal | LD50 > 2000 mg/kg | Rat | Study report (2004) | OECD Guideline 402 |
| 7758-99-8 | copper sulphate pentahydrate | | | | |
| | oral | ATE 481 mg/kg | | | |
| | dermal | LD50 > 2000 mg/kg | Rat | Study report (1993) | OECD Guideline 402 |
| 7791-13-1 | Cobalt(II) chloride hexahydrate | | | | |
| | oral | LD50 537 mg/kg | Rat | Revista Española de Fisiología, 39: 291 | OECD Guideline 401 |
| | dermal | LD50 > 2000 mg/kg | Rat | Study report (2007) | OECD Guideline 402 |

Irritation and corrosivity

Causes serious eye damage.

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

Sensitising effects

May cause an allergic skin reaction. (Iron(III) chloride hexahydrate; Cobalt(II) chloride hexahydrate)

Carcinogenic/mutagenic/toxic effects for reproduction

May cause cancer by inhalation. (Cobalt(II) chloride hexahydrate)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: 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 preparation/mixture itself.

Additional information on tests

There are no data available on the preparation/mixture itself.

Practical experience

There are no data available on the preparation/mixture itself.

11.2. Information on other hazards

Other information

There are no data available on the preparation/mixture itself.

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Further information

There are no data available on the preparation/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 |
| 7647-01-0 | Hydrochloric acid | | | | | |
| | Acute fish toxicity | LC50 862 mg/l | 96 h | Leuciscus idus | | |
| 7758-99-8 | copper sulphate pentahydrate | | | | | |
| | Acute fish toxicity | LC50 0,193 mg/l | 96 h | Pimephales promelas | Study report (1996) | measurements were conducted by standard |
| | Acute algae toxicity | ErC50 0,152 mg/l | 72 h | Pseudokirchneriella subcapitata | Publication (2005) | OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 0,007 mg/l | 48 h | Daphnia magna | Study report (1978) | - Test were conducted on Daphnia magna t |
| | Fish toxicity | NOEC 0,123 mg/l | 12 d | Atherinops affinis | Mar. Environ. Res. 31: 17-35 (1991) | Three tests are reported, designed to de |
| | Algae toxicity | NOEC 0,0102 mg/l | 19 d | other aquatic plant: giant kelp Macrocystis pyrife | Mar. Ecol. Prog. Ser. 68: 147 - 156 (199) | Tests were conducted to determine the ef |
| | Crustacea toxicity | NOEC 0,033 mg/l | 14 d | Penaeus mergulensis and Penaeus monodon | Bull. Environ. Contain. Toxicol. (1995) | The effects of dissolved copper on the g |
| 7791-13-1 | Cobalt(II) chloride hexahydrate | | | | | |
| | Acute fish toxicity | LC50 54,1 mg/l | 96 h | Pimephales promelas | Study report (2009) | other: ASTM guideline |
| | Acute algae toxicity | ErC50 71,314 mg/l | 96 h | Dunaliella tertiolecta | Study report (2010) | other: American Society for Testing and |
| | Acute crustacea toxicity | EC50 42,7 mg/l | 48 h | Aeolosoma sp. | Study report (2008) | Newman, J.P., Jr. 1975. The effects of h |
| | Fish toxicity | NOEC 0,21 mg/l | 34 d | Pimephales promelas | Study report (2009) | other: This study was conducted accordin |
| | Algae toxicity | NOEC 0,0018 mg/l | 7 d | Champia parvula | Study report - model refit from original | other: EPA 821-R- 02-014, Method 1009.0 |
| | Crustacea toxicity | NOEC 0,1697 mg/l | 14 d | Aeolosoma sp. | Study report (2008) | other: Newman, J.P., Jr. 1975. The effec |
| | Acute bacteria toxicity | (EC50 120 mg/l) | 0,5 h | Activated sludge | Study report (2010) | OECD Guideline 209 |

12.2. Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

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BCF

| CAS No | Chemical name | BCF | Species | Source |
|------------|---------------------------------|-----------|-------------------------------|----------------------|
| 10025-77-1 | Iron(III) chloride hexahydrate | 48 | Fish, Oreochromis mossambicus | Indian Journal of En |
| 7758-99-8 | copper sulphate pentahydrate | 0,02 - 20 | Crangon crangon | Symp. Biologica. Hun |
| 7791-13-1 | Cobalt(II) chloride hexahydrate | 23 | Asterias rubens | Marine Pollution Bul |

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 UK REACH.

There are no data available on the mixture itself.

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

Discharge into the environment must be avoided.

Harmful effect due to pH shift.

Forms corrosive mixtures with water even if diluted.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

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

Send to a physico-chemical treatment facility under observation of official regulations.

Do not empty into drains.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

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

Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)".

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

| | |
|--|-------------------|
| 14.1. UN number or ID number: | UN 1789 |
| 14.2. UN proper shipping name: | HYDROCHLORIC ACID |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | III |
| Hazard label: | 8 |
| Classification code: | C1 |
| Special Provisions: | 520 |
| 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 1789 |
| 14.2. UN proper shipping name: | HYDROCHLORIC ACID |

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14.3. Transport hazard class(es): 8
14.4. Packing group: III
 Hazard label: 8
 Classification code: C1
 Special Provisions: 520
 Limited quantity: 5 L
 Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 1789
14.2. UN proper shipping name: HYDROCHLORIC ACID
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

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN 1789
14.2. UN proper shipping name: HYDROCHLORIC ACID
14.3. Transport hazard class(es): 8
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

SECTION 15: Regulatory information

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

EU regulatory information

Authorisations (REACH, annex XIV):
 Substances of very high concern, SVHC (REACH, article 59):
 Cobalt(II) chloride hexahydrate

Restrictions on use (REACH, annex XVII):
 Entry 3, Entry 75

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

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe employment restrictions for women of child-bearing age.

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

Safety Data Sheet

according to UK REACH Regulation

Color reference solution GG (yellowish green) Reag. Ph. Eur., chapter 2.2.2

Revision date: 25.09.2023

Product code: 22764

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SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 3,9.

Abbreviations and acronyms

Met. Corr: Corrosive to metals
 Acute Tox: Acute toxicity
 Skin Corr: Skin corrosion
 Skin Irrit: Skin irritation
 Eye Dam: Eye damage
 Resp. Sens: Respiratory sensitisation
 Skin Sens: Skin sensitisation
 Muta: Germ cell mutagenicity
 Carc: Carcinogenicity
 Repr: Reproductive toxicity
 STOT SE: Specific target organ toxicity - single exposure
 Aquatic Acute: Acute aquatic hazard
 Aquatic Chronic: Chronic aquatic hazard

Classification for mixtures and used evaluation method according to GB CLP Regulation

| Classification | Classification procedure |
|-------------------------|--------------------------|
| Met. Corr. 1; H290 | On basis of test data |
| Eye Dam. 1; H318 | Calculation method |
| Skin Sens. 1; H317 | Calculation method |
| Carc. 1B; H350i | Calculation method |
| Aquatic Chronic 3; H412 | Calculation method |

Relevant H and EUH statements (number and full text)

H290 May be corrosive to metals.
 H302 Harmful if swallowed.
 H314 Causes severe skin burns and eye damage.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H335 May cause respiratory irritation.
 H341 Suspected of causing genetic defects.
 H350i May cause cancer by inhalation.
 H360F May damage fertility.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.

Further Information

The above information describes exclusively the safety requirements of the product and is based on our 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 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 receiver of our product is singularly responsible for adhering to existing laws and regulations.

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