

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumhypochlorit 1,5%

Revision date: 25.01.2023

Product code: 22728

Page 1 of 12

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

1.1. Product identifier

Natriumhypochlorit 1,5%

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

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
Skin Irrit. 2; H315
Eye Irrit. 2; H319
Aquatic Acute 1; H400
Aquatic Chronic 3; H412

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. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumhypochlorit 1,5%

Revision date: 25.01.2023

Product code: 22728

Page 2 of 12

- H400 Very toxic to aquatic life.
- H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

- P273 Avoid release to the environment.
- P280 Wear protective gloves and eye/face protection.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.

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) | | | |
| 7681-52-9 | sodium hypochlorite, solution | | | 1 - < 5 % |
| | 231-668-3 | 017-011-00-1 | 01-2119488154-34 | |
| | Met. Corr. 1, Skin Corr. 1B, Eye Dam. 1, STOT SE 3, Aquatic Acute 1, Aquatic Chronic 1; H290 H314 H318 H335 H400 H410 EUH031 | | | |

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 | |
| 7681-52-9 | 231-668-3 | sodium hypochlorite, solution | 1 - < 5 % |
| | | inhalation: LC50 = > 10,5 mg/l (vapours); dermal: LD50 = > 20000 mg/kg; oral: LD50 = 1100 mg/kg Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=1 EUH; EUH031: >= 5 - 100 | |

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.
- Call a doctor if you feel unwell.

After contact with skin

- Wash immediately with:
- Water
- Take off immediately all contaminated clothing and wash it before reuse.
- In case of skin irritation, consult a physician.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumhypochlorit 1,5%

Revision date: 25.01.2023

Product code: 22728

Page 3 of 12

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.

After ingestion

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

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

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-flammable.

Hazardous combustion products

In case of fire may be liberated: Hydrogen chloride (HCl)

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.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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

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.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumhypochlorit 1,5%

Revision date: 25.01.2023

Product code: 22728

Page 4 of 12

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

Do not breathe vapour/aerosol.

Read label before use.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

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

Provide adequate ventilation as well as local exhaust at critical locations.

Unsuitable container/equipment material:

Metal.

Further information on storage conditions

Keep container tightly closed.

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumhypochlorit 1,5%

Revision date: 25.01.2023

Product code: 22728

Page 5 of 12

DNEL/DMEL values

| CAS No | Substance | | |
|--------------------------|-------------------------------|----------|------------------------|
| DNEL type | Exposure route | Effect | Value |
| 7681-52-9 | sodium hypochlorite, solution | | |
| Worker DNEL, long-term | inhalation | systemic | 1,55 mg/m ³ |
| Worker DNEL, acute | inhalation | systemic | 3,1 mg/m ³ |
| Worker DNEL, long-term | inhalation | local | 1,55 mg/m ³ |
| Worker DNEL, acute | inhalation | local | 3,1 mg/m ³ |
| Worker DNEL, long-term | dermal | local | 0,5 % |
| Consumer DNEL, long-term | inhalation | systemic | 1,55 mg/m ³ |
| Consumer DNEL, acute | inhalation | systemic | 3,1 mg/m ³ |
| Consumer DNEL, long-term | inhalation | local | 1,55 mg/m ³ |
| Consumer DNEL, acute | inhalation | local | 3,1 mg/m ³ |
| Consumer DNEL, long-term | dermal | local | 0,5 % |
| Consumer DNEL, long-term | oral | systemic | 0,26 mg/kg bw/day |

PNEC values

| CAS No | Substance | |
|--|-------------------------------|--|
| Environmental compartment | Value | |
| 7681-52-9 | sodium hypochlorite, solution | |
| Freshwater | 0,00021 mg/l | |
| Freshwater (intermittent releases) | 0,00026 mg/l | |
| Marine water | 0,000042 mg/l | |
| Secondary poisoning | 11,1 mg/kg | |
| Micro-organisms in sewage treatment plants (STP) | 4,69 mg/l | |

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 gas/fumes/vapour/spray.

Individual protection measures, such as personal protective equipment

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 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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumhypochlorit 1,5%

Revision date: 25.01.2023

Product code: 22728

Page 6 of 12

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: | light yellow | |
| Odour: | characteristic | |
| Odour threshold: | No data available | |
| Melting point/freezing point: | | No data available |
| Boiling point or initial boiling point and boiling range: | | No data available |
| Flammability: | | not applicable not applicable |
| Lower explosion limits: | | not determined |
| Upper explosion limits: | | not determined |
| Flash point: | | X |
| Auto-ignition temperature: | | No data available |
| Decomposition temperature: | | not determined |
| pH-Value: | | alkaline |
| Viscosity / kinematic: | | No data available |
| Solubility in other solvents | | |
| not determined | | |
| Partition coefficient n-octanol/water: | | not determined |
| Vapour pressure: | | No data available |
| Vapour pressure: | | No data available |
| Density: | | 1,02238 g/cm³ |
| Bulk density: | | No data available |
| Relative vapour density: | | not determined |

9.2. Other information

Information with regard to physical hazard classes

| | |
|---------------------------|-------------------|
| Sustaining combustion: | No data available |
| Self-ignition temperature | |
| Solid: | not applicable |
| Gas: | not applicable |

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumhypochlorit 1,5%

Revision date: 25.01.2023

Product code: 22728

Page 7 of 12

Oxidizing properties
Not oxidising.

Other safety characteristics

| | |
|--------------------------|-------------------|
| Evaporation rate: | not determined |
| Solvent separation test: | not determined |
| Solvent content: | 0 |
| Solid content: | 0 |
| Sublimation point: | No data available |
| Softening point: | No data available |
| Pour point: | No data available |
| Viscosity / dynamic: | No data available |
| Flow time: | No data available |

Further Information

not determined

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

Alkali metals
Ammonia (NH₃)
Metal
Acid

10.4. Conditions to avoid

none

10.5. Incompatible materials

Keep away from: Metal.

10.6. Hazardous decomposition products

In case of fire may be liberated: Hydrogen chloride (HCl)

Further information

No data available

SECTION 11: Toxicological information

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.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumhypochlorit 1,5%

Revision date: 25.01.2023

Product code: 22728

Page 8 of 12

| CAS No | Chemical name | | | | |
|-----------|-------------------------------|-----------------------|---------|---------------------|--------------------|
| | Exposure route | Dose | Species | Source | Method |
| 7681-52-9 | sodium hypochlorite, solution | | | | |
| | oral | LD50 mg/kg 1100 | Rat | Study report (1981) | OECD Guideline 401 |
| | dermal | LD50 mg/kg > 20000 | Rabbit | Study report (1978) | OECD Guideline 402 |
| | inhalation (1 h) vapour | LC50 mg/l > 10,5 | Rat | Study report (1962) | OECD Guideline 403 |

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

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

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.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumhypochlorit 1,5%

Revision date: 25.01.2023

Product code: 22728

Page 9 of 12

| CAS No | Chemical name | | | | | |
|-----------|-------------------------------|----------------|-----------|---------|---|--|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method |
| 7681-52-9 | sodium hypochlorite, solution | | | | | |
| | Acute fish toxicity | LC50 mg/l | 0,05 | 96 h | different fish species | Publication (1978) Public available literature. No guideline |
| | Acute algae toxicity | ErC50 mg/l | 0,036 | 72 h | Pseudokirchneriella subcapitata | Study report (2013) OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 mg/l | 0,141 | 48 h | Daphnia magna | Study report (2009) OECD Guideline 202 |
| | Fish toxicity | NOEC mg/l | 0,062 | 15 d | Brevoortia tyrannus | Publication (1980) Organisms were exposed to cooling waters |
| | Crustacea toxicity | NOEC mg/l | 0,015 | 21 d | V. iris | Environmental Toxicology and Chemistry, 21 d long-term toxicity to mussel test. |
| | Acute bacteria toxicity | (EC50 mg/l) | 563 | 3 h | activated sludge of a predominantly domestic sewage | Study report (2013) OECD Guideline 209 |

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.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|-----------|-------------------------------|---------|
| 7681-52-9 | sodium hypochlorite, solution | -3,42 |

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.

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.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains.

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

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.

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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumhypochlorit 1,5%

Revision date: 25.01.2023

Product code: 22728

Page 10 of 12

SECTION 14: Transport information

Land transport (ADR/RID)

| | |
|--|-----------------------|
| 14.1. UN number or ID number: | UN 1791 |
| 14.2. UN proper shipping name: | HYPOCHLORITE SOLUTION |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | III |
| Hazard label: | 8 |
| Classification code: | C9 |
| Special Provisions: | 521 |
| 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 1791 |
| 14.2. UN proper shipping name: | HYPOCHLORITE SOLUTION |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | III |
| Hazard label: | 8 |
| Classification code: | C9 |
| Special Provisions: | 521 |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |

Marine transport (IMDG)

| | |
|--|-----------------------|
| 14.1. UN number or ID number: | UN 1791 |
| 14.2. UN proper shipping name: | HYPOCHLORITE SOLUTION |
| 14.3. Transport hazard class(es): | 8 |
| 14.4. Packing group: | III |
| Hazard label: | 8 |
| Marine pollutant: | P |
| Special Provisions: | 223, 274, 900 |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |
| EmS: | F-A, S-B |
| Segregation group: | 8 - hypochlorites |

Air transport (ICAO-TI/IATA-DGR)

| | |
|--|-----------------------|
| 14.1. UN number or ID number: | UN 1791 |
| 14.2. UN proper shipping name: | HYPOCHLORITE SOLUTION |
| 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

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumhypochlorit 1,5%

Revision date: 25.01.2023

Product code: 22728

Page 11 of 12

ENVIRONMENTALLY HAZARDOUS: Yes
Danger releasing substance: sodium hypochlorite, solution

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 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).

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

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,4,6,7,9,10,11,12,13,14,15.

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 |
| Skin Irrit. 2; H315 | Calculation method |
| Eye Irrit. 2; H319 | Calculation method |
| Aquatic Acute 1; H400 | Calculation method |
| Aquatic Chronic 3; H412 | |

Relevant H and EUH statements (number and full text)

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumhypochlorit 1,5%

Revision date: 25.01.2023

Product code: 22728

Page 12 of 12

H412 Harmful to aquatic life with long lasting effects.
EUH031 Contact with acids liberates toxic gas.

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