

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Natriumhypochloritlösung 4% etwa 40g NaOCI/kg

Revision date: 14.11.2024 Product code: 11489 Page 1 of 12

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

1.1. Product identifier

Natriumhypochloritlösung 4% etwa 40g NaOCl/kg

UFI: QDT0-51RW-800R-P7FE

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

ACD

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 For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire,

number: 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 Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

sodium hypochlorite, solution **Signal word:**Danger

Pictograms:







according to Regulation (EC) No 1907/2006

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Hazard statements

H290 May be corrosive to metals.
H315 Causes skin irritation.
H318 Causes serious eye damage.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

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.

P310 Immediately call a POISON CENTER/doctor.

P391 Collect spillage.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures in aqueous solution

Relevant ingredients

CAS No	Chemical name			Quantity
	EC 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		Aquatic Chronic 1; H290	

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

Specific Conc. Limits, M-factors and ATE

opcomo cono: Eminto, in lactoro ana ATE					
CAS No	EC No	Chemical name	Quantity		
	Specific Conc. L	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

First aider: Pay attention to self-protection!

Take off immediately all contaminated clothing and wash it before reuse.

After inhalation

Provide fresh air.



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If breathing is irregular or stopped, administer artificial respiration.

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.

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

Skin corrosion/irritation

Dyspnoea

Cough

Risk of serious damage to eyes.

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-combustible liquids

Hazardous combustion products

In case of fire may be liberated:

Chlorine (CI2)

Hydrogen chloride (HCI)

5.3. Advice for firefighters

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

Avoid contact with skin, eyes and clothes.

Additional information

Use water spray jet to protect personnel and to cool endangered containers.

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.



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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

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 exhaustion at critical locations.

Close containers in such a way to enable internal pressure to escape (e.g. excess pressure valve).

Hints on joint storage

Keep away from: Acid Heat

Further information on storage conditions

Keep in a cool, well-ventilated place.

Unsuitable container/equipment material: Metal

Protect against: Light

7.3. Specific end use(s)



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Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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/m³
Worker DNEL	., acute	inhalation	systemic	3,1 mg/m³
Worker DNEL	., long-term	inhalation	local	1,55 mg/m³
Worker DNEL, acute		inhalation	local	3,1 mg/m³
Worker DNEL, long-term		dermal	local	0,5 %
Consumer DNEL, long-term		inhalation	systemic	1,55 mg/m³
Consumer DNEL, acute		inhalation	systemic	3,1 mg/m³
Consumer DNEL, long-term		inhalation	local	1,55 mg/m³
Consumer DNEL, acute		inhalation	local	3,1 mg/m³
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			
Environmenta	al compartment	Value		
7681-52-9	sodium hypochlorite, solution			
Freshwater		0,00021 mg/l		
Freshwater (intermittent releases)		0,00026 mg/l		
Marine water 0				
Secondary po	11,1 mg/kg			
Micro-organisms in sewage treatment plants (STP) 4,69 mg		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



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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.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

Filtering device with filter or ventilator filtering device of type: B-(P3)

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

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: clear
Odour: characteristic
Odour threshold: No data available

Melting point/freezing point:

Boiling point or initial boiling point and

No data available

No data available

boiling range:

Flammability: not applicable Lower explosion limits: No data available No data available Upper explosion limits: Flash point: No data available Auto-ignition temperature: No data available Decomposition temperature: pH-Value: alkaline Viscosity / kinematic: No data available Water solubility: easily soluble

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

Vapour pressure:

No data available

No data available



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Vapour pressure:No data availableDensity (at 20 °C):1,0601 g/cm³Bulk density:No data availableRelative vapour density:No data available

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

Oxidizing properties Not oxidising.

Other safety characteristics

Evaporation rate:

Solvent separation test:

No data available
Solvent content:

No data available
Solid content:

No data available
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
No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive to metals.

10.2. Chemical stability

Protect against:

Light

Air

Heat

10.3. Possibility of hazardous reactions

Acid, Hydrochloric acid Chlorine (Cl2), Nitric acid arsenic, Formic acid

Ammonia (NH3), Acetic anhydride

Methanol, Oxidizing agent

Reducing agent

10.4. Conditions to avoid

Light

Air

Heat

Handle with care - avoid bumps, friction and impact.

10.5. Incompatible materials

Metal

copper, nickel, Iron.



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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 Regulation (EC) No 1272/2008

Toxicocinetics, metabolism and distribution

There are no data available on the mixture itself.

Acute toxicity

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

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

Pulmonary oedema

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
7681-52-9	sodium hypochlorite, solu	ution				
	oral	mg/kg		Rat	Study report (1981)	OECD Guideline 401
	dermal			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

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye damage.

Risk of serious damage to eyes.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

Carcinogenicity: 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 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.



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11.2. Information on other hazards

Other information

There are no data available on the mixture itself.

Further information

Skin corrosion/irritation

Dyspnoea

Cough

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

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 guidelin
	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	563 mg/l	3 h	activated sludge of a predominantly domestic sewag	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.

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.



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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Dispose of waste according to applicable legislation.

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

Do not allow to enter into surface water or drains.

Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

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): 14.4. Packing group: П Hazard label: 8 Classification code: C9 **Special Provisions:** 521 Limited quantity: 1 L E2 Excepted quantity: Transport category: 2 Hazard No: 80 Tunnel restriction code: Ε

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):814.4. Packing group:IIHazard label:8Classification code:C9Special Provisions:521Limited quantity:1 LExcepted quantity:E2

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):814.4. Packing group:IIHazard label:8Marine pollutant:PSpecial Provisions:-Limited quantity:1 LExcepted quantity:E2EmS:F-A, S-B

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):814.4. Packing group:IIHazard label:8



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Special Provisions:

Limited quantity Passenger:

Passenger LQ:

Excepted quantity:

A3 A803

0.5 L

Y840

Excepted quantity:

E2

IATA-packing instructions - Passenger:851IATA-max. quantity - Passenger:1 LIATA-packing instructions - Cargo:855IATA-max. quantity - Cargo:30 L

14.5. Environmental hazards

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 Directive

2012/18/EU (SEVESO III):

E1 Hazardous to the Aquatic Environment

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.

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): 1,2,9,12.

Abbreviations and acronyms

Met. Corr: Substance or mixture corrosive to metals

Skin Corr: Skin corrosion Skin Irrit: Skin irritation Eye Dam: Eye damage

STOT SE: Specific target organ toxicity - single exposure

Aquatic Acute: Acute aquatic hazard Aquatic Chronic: Chronic aquatic hazard

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%



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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 Dam. 1; H318	Calculation method
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 2; H411	Calculation method

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.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic 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. Provide appropriate information, instructions and training to users

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