

SAFETY DATA SHEET

Natriumhypochlorit

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

1.1. Product identifier

Trade name

Natriumhypochlorit

Product no.

414

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

Relevant identified uses of the substance or mixture

Professional uses.

Use descriptors (UK REACH)

Sectors of use	Description
LCS "IS"	Industrial uses: Uses of substances as such or in preparations at industrial sites
LCS "PW"	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Product category	Description
PC 35	Washing and Cleaning Products (including solvent based products)
Process category	Description
PROC 1	Use in closed PROC ess, no likelihood of exposure
PROC 19	Hand-mixing with intimate contact and only PPE available
PROC 2	Use in closed, continuous PROC ess with occasional controlled exposure
PROC 28	Manual maintenance (cleaning and repair) of machinery
Environmental release category	Description
ERC 8b	Wide dispersive indoor use of reactive substances in open systems

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Jysk Kemi Service A/S

Gl. Struervej 50

7500 Holstebro

Denmark

+45 9740 3133

+45 9740 4846

www.jyskkemi.dk

Contact person

Rikke Hunskjær

E-mail

rikke@jyskkemi.dk

Revision

03/04/2023

SDS Version

1.0

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin Corr. 1B; H314, Causes severe skin burns and eye damage.

Eye Dam. 1; H318, Causes serious eye damage.

Aquatic Acute 1; H400, Very toxic to aquatic life.

Aquatic Chronic 2; H411, Toxic to aquatic life with long lasting effects.

Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

2.2. Label elements

Hazard pictogram(s)



Signal word

Danger

Hazard statement(s)

Causes severe skin burns and eye damage. (H314)

Very toxic to aquatic life with long lasting effects. (H410)

Precautionary statements

General

-

Prevention

Do not breathe vapour/mist. (P260)

Avoid release to the environment. (P273)

Wear face protection/protective gloves. (P280)

Response

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. (P303+P361+P353)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. (P305+P351+P338)

Storage

-

Disposal

Dispose of contents/container in accordance with local regulation. (P501)

Hazardous substances

sodium hypochlorite

Additional labelling

Not applicable.

2.3. Other hazards

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
sodium hypochlorite	CAS No.: 7681-52-9 EC No.: 231-668-3 UK-REACH: Index No.: 017-011-00-1	15-25%	EUH031 Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

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SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

Flush exposed area with water for a long time - at least 30 minutes. It may be necessary to flush for several hours. Use a comfortable water temperature (20-30 °C). Contact Poison Information/doctor/hospital for further advice on follow-up and treatment.

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eye contact

Upon irritation of the eye: Remove contact lenses. Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

Ingestion

In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting unless this is recommended by a doctor. Hold head facing down to prevent vomit returning mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

Burns

Not applicable.

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

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

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

IF exposed or concerned:

Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Not applicable.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Halogenated compounds

Some metal oxides

Oxygen, hypochlorous acid, chlorine.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

Hazchem Code: 2X

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.

Avoid direct contact with the product.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Keep only in original packaging.

Storage temperature

> 0°C

Incompatible materials

Strong acids, alkali metals, metal powders, oxidizing materials and amines. Contact with metals can result in decomposition with the formation of oxygen.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

sodium hydroxide

Short term exposure limit (15 minutes) (mg/m³): 2

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002. EH40/2005 Workplace exposure limits (Fourth Edition 2020).

DNEL

sodium hydroxide

Duration:	Route of exposure:	DNEL:
Long term – Local effects - General population	Inhalation	1 mg/m ³
Long term – Local effects - Workers	Inhalation	1 mg/m ³
Short term – Local effects - Workers	Inhalation	1 mg/m ³

sodium hypochlorite

Duration:	Route of exposure:	DNEL:
Long term – Local effects - Workers	Dermal	0,5%
Long term – Local effects - General population	Inhalation	1.55 mg/m ³

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Long term – Local effects - Workers	Inhalation	1.55 mg/m ³
Long term – Systemic effects - General population	Inhalation	1,55 mg/m ³
Long term – Systemic effects - General population	Inhalation	1.55 mg/m ³
Long term – Systemic effects - Workers	Inhalation	1,55 mg/m ³
Long term – Systemic effects - Workers	Inhalation	1.55 mg/m ³
Short term – Local effects - General population	Inhalation	3,1 mg/m ³
Short term – Local effects - General population	Inhalation	3.1 mg/m ³
Short term – Local effects - Workers	Inhalation	3.1 mg/m ³
Short term – Systemic effects - General population	Inhalation	3.1 mg/m ³
Short term – Systemic effects - Workers	Inhalation	3,1 mg/m ³
Short term – Systemic effects - Workers	Inhalation	3.1 mg/m ³
Long term – Systemic effects - General population	Oral	0,26 mg/kg legemsvægt/dag
Long term – Systemic effects - General population	Oral	260 µg/kgbw/day

PNEC

sodium hypochlorite

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		0,21 µg/l
Freshwater		210 ng/L
Intermittent release		0,26 µg/l
Intermittent release (freshwater)		260 ng/L
Marine water		0,042 µg/l
Marine water		42 ng/L
Predators		11.1 mg/kg
Sewage treatment plant		0,03 mg/l
Sewage treatment plant		4.69 mg/L

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.




Individual protection measures, such as personal protective equipment

Generally

Use only UKCA marked protective equipment.

Respiratory Equipment

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Type	Class	Colour	Standards	
B	Class 3 (High capacity)	Gray	EN14387	
Skin protection				
Recommended	Type/Category	Standards		
No special when used as intended.	-	-		
Hand protection				
Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0.22500000000000001	> 480	EN374-2, EN374-3, EN388	
Eye protection				
Type	Standards			
In the likelihood of direct or incidental exposure, use face protection.	EN166			
				

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Colour

Pale yellow

Odour / Odour threshold

Characteristic

pH

13,5

Density (g/cm³)

1,21-1,23 (20 °C)

Kinematic viscosity

No data available

Dynamic viscosity

2,65 mPa.s

Particle characteristics

Not applicable - product is a liquid

Phase changes

Melting point/Freezing point (°C)

Not applicable - product is a liquid

Softening point/range (waxes and pastes) (°C)

Does not apply to liquids.

Boiling point (°C)

Testing not relevant or not possible due to the nature of the product.

Vapour pressure

17 hPa

Relative vapour density

No data available

Decomposition temperature (°C)

Testing not relevant or not possible due to the nature of the product.

Data on fire and explosion hazards

Flash point (°C)

No data available

Flammability (°C)

No data available

Auto-ignition temperature (°C)

No data available

Lower and upper explosion limit (% v/v)

No data available

Solubility

Solubility in water

Completely soluble

n-octanol/water coefficient

Testing not relevant or not possible due to the nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to the nature of the product.

9.2. Other information

Evaporation rate (n-butylacetate = 100)

No data available

Oxidizing properties

Testing not relevant or not possible due to the nature of the product.

Other physical and chemical parameters

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Contact with acids liberates toxic gas.

Reacts violently with alkali metals, metal powders, oxidizing materials and amines.

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

Contact with acids liberates toxic gas.

10.4. Conditions to avoid

Protect from sunlight. Do not expose to temperatures exceeding 20 °C/68 °F.

10.5. Incompatible materials

Strong acids, alkali metals, metal powders, oxidizing materials and amines. Contact with metals can result in decomposition with the formation of oxygen.

10.6. Hazardous decomposition products

Oxygen, hypochlorous acid, chlorine.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 as retained and amended in UK law

Acute toxicity

Product/substance	sodium hypochlorite
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	> 20000 mg/kg ·

Product/substance	sodium hypochlorite
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50
Result:	> 10,5 mg/l ·

Product/substance	sodium hydroxide
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	325 mg/kg ·

Skin corrosion/irritation

Product/substance	sodium hypochlorite
Test method:	OECD 404
Species:	Rabbit
Duration:	No data available.
Result:	Adverse effect observed (Highly irritating)

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory sensitisation

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

Skin sensitisation

Product/substance	sodium hydroxide
Species:	Rabbit
Result:	Adverse effect observed (sensitising)

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.

11.2. Information on other hazards

Long term effects

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

Endocrine disrupting properties

Not applicable.

Other information

None known.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance	sodium hypochlorite
Species:	Fish
Duration:	7 days
Test:	LC50
Result:	0,03-0,6 mg/l ·

Product/substance	sodium hypochlorite
Species:	Daphnia
Duration:	48 hours
Test:	EC50
Result:	0,141 mg/l ·

Product/substance	sodium hydroxide
Species:	Fish
Duration:	7 days
Test:	LC50
Result:	125 mg/l ·

Product/substance	sodium hydroxide
Species:	Daphnia
Duration:	24 hours
Test:	EC50

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Result: 145 mg/l ·

Product/substance sodium hydroxide
 Species: Crustacean
 Duration: 15 min
 Test: EC50
 Result: 22 mg/l ·

Product/substance sodium hydroxide
 Species: Daphnia, Ceriodaphnia dubia
 Duration: 48 hours
 Test: EC50
 Result: 40,4 mg/L

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

Product/substance sodium hypochlorite
 Test method:
 Potential bioaccumulation: No
 LogPow: No data available.
 BCF: No data available.
 Other information:

Product/substance sodium hydroxide
 Test method:
 Potential bioaccumulation: No
 LogPow: No data available.
 BCF: No data available.
 Other information:

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Endocrine disrupting properties

Not applicable.

12.7. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.

This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: Disposal considerations

Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 8 – Corrosive

HP 14 – Ecotoxic

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

20 01 15* Alkalines

Waste group H Waste group H

Specific labelling

Not applicable.

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

Compiled in accordance with REACH Regulation (EC) No 1907/2006, as retained and amended S.I. 2019 No. 758

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	UN1791	HYPOCHLORITE SOLUTION	Class: 8 Labels: 8 Classification code: C9  	II	Yes	Limited quantities: 1 L Tunnel restriction code: (E) See below for additional information.
IMDG	UN1791	HYPOCHLORITE SOLUTION	Class: 8 Labels: 8 Classification code: C9  	II	Yes	Limited quantities: 1 L EmS: F-A S-B See below for additional information.
IATA	UN1791	HYPOCHLORITE SOLUTION	Class: 8 Labels: 8 Classification code: C9  	II	Yes	See below for additional information.

* Packing group

** Environmental hazards

Additional information

ADR / See Table A, Section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

This product is within scope of the regulations of transport of dangerous goods.

Hazchem Code: 2X

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

Restrictions for application

Restricted to professional users.

People under the age of 18 shall not be exposed to this product.

Demands for specific education

No specific requirements.

SEVESO - Categories / dangerous substances

E1 - ENVIRONMENTAL HAZARDS, Qualifying quantity (lower-tier): 100 tonnes / (upper-tier): 200 tonnes

Additional information

Not applicable.

Sources

The Management of Health and Safety at Work Regulations 1999.

Control of Major Accident Hazards (COMAH) Regulations 2015.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H314, Contact with acids liberates toxic gas.

H318, Causes severe skin burns and eye damage.

H318, Causes serious eye damage.

H400, Very toxic to aquatic life.

H410, Very toxic to aquatic life with long lasting effects.

The full text of identified uses as mentioned in section 1

LCS "IS" = Industrial uses: Uses of substances as such or in preparations at industrial sites

LCS "PW" = Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

PROC 1 = Use in closed PROC ess, no likelihood of exposure

PROC 19 = Hand-mixing with intimate contact and only PPE available

PROC 2 = Use in closed, continuous PROC ess with occasional controlled exposure

PROC 28 = Manual maintenance (cleaning and repair) of machinery

PC 35 = Washing and Cleaning Products (including solvent based products)

ERC 8b = Wide dispersive indoor use of reactive substances in open systems

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SCL = A specific concentration limit

SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The classification of the substance/mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The safety data sheet is validated by

RH

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en