

Safety Data Sheet

according to UK REACH Regulation

Sodium Hypochlorite 0,9 %

Revision date: 06.11.2023

Product code: 18545.xxxxx

Page 1 of 10

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

Sodium Hypochlorite 0,9 %

UFI: C6CN-G108-200X-47XH

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

Use as laboratory reagent. Intended for scientific research and development.

Uses advised against

Any non-intended use.

1.3. Details of the supplier of the safety data sheet

Company name:	MORPHISTO GmbH	
Street:	Schumannstr. 144	
Place:	D-63069 Offenbach	
Telephone:	+49 (0) 69 / 400 3019-60	Telefax: +49 (0) 69 / 400 3019-64
E-mail:	info@morphisto.de	
Contact person:	Morphisto GmbH	
E-mail:	gefahrstoffmanagement@morphisto.de	
Internet:	http://www.morphisto.de	

1.4. Emergency telephone number:

Morphisto GmbH, Tel: +49(0)69 400 3019-60, Mo-Fr.: 09-16 Uhr

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****GB CLP Regulation**

Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements**GB CLP Regulation****Hazard statements**

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

Labelling of packages where the contents do not exceed 125 ml**Hazard statements**

H412

2.3. Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulating and toxic (PBT) or very persistent and very bioaccumulating (vPvB) at levels of 0.1% or higher. Ecological information: The substance/mixture does not contain any components that are considered to be hazardous according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in amounts of 0.1 % or more have endocrine disrupting properties. Toxicological information: The substance/mixture does not contain any components that are to be classified according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1 % or more have endocrine disrupting properties.

SECTION 3: Composition/information on ingredients**3.2. Mixtures**

Safety Data Sheet

according to UK REACH Regulation

Sodium Hypochlorite 0,9 %

Revision date: 06.11.2023

Product code: 18545.xxxxx

Page 2 of 10

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
7681-52-9	sodium hypochlorite			< 1 %
	231-668-3	017-011-00-1	01-2119488154-34	
	Skin Corr. 1B, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H314 H318 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	< 1 %
	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 contains no substances of very high concern (SVHC) (>0,1%) which are included in the Candidate List according to Article 59 of REACH.

SECTION 4: First aid measures
4.1. Description of first aid measures
General information

First aider: Pay attention to self-protection! IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Take off immediately all contaminated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice.

After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

After contact with skin

Take off contaminated clothing and wash it before reuse. Wash with plenty of water. In all cases of doubt, or when symptoms persist, seek medical advice.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. Call a physician immediately.

After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Call a physician immediately.

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

SECTION 11: Toxicological information

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

Treat symptomatically.

SECTION 5: Firefighting measures
5.1. Extinguishing media
Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings. Suitable: Carbon dioxide (CO₂), alcohol-resistant foam, dry extinguishing agent, water spray. Adjust extinguishing measures to the environment.

Unsuitable extinguishing media

Unsuitable: Do not use water in full jet.

Safety Data Sheet

according to UK REACH Regulation

Sodium Hypochlorite 0,9 %

Revision date: 06.11.2023

Product code: 18545.xxxxx

Page 3 of 10

5.2. Special hazards arising from the substance or mixtureNon-flammable. In case of fire may be liberated: Chlorine (Cl₂). Hydrogen chloride (HCl).**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

Additional information

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

Dispose of waste according to applicable legislation.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Use personal protection equipment. Provide adequate ventilation. Avoid all contact with the substance. Avoid: generation/formation of aerosols

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 cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

Other information

Clean contaminated objects and areas thoroughly observing environmental regulations.

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**

The usual precautions for handling chemicals should be considered. Avoid contact with skin, eyes and clothes. Take off contaminated clothing and wash it before reuse. When using do not eat, drink, smoke, sniff. Wash hands before breaks and after work.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. General protection and hygiene measures - see section 7.1

Further information on handling

Decomposes when heated, releasing oxygen, dichloroxide, chlorine or hydrogen chloride. Avoid release to the environment.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Due to gaseous decomposition products, overpressure can occur in tightly sealed containers. No metal containers. Keep only in the original container at temperature not exceeding 30 °C. Protect from light.

Hints on joint storage

Do not store together with acids.

Recommended storage temperature: 15-25°C

7.3. Specific end use(s)

Safety Data Sheet

according to UK REACH Regulation

Sodium Hypochlorite 0,9 %

Revision date: 06.11.2023

Product code: 18545.xxxxx

Page 4 of 10

Use as laboratory reagent.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
DNEL/DMEL values

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

PNEC values

CAS No	Substance	Value
7681-52-9	sodium hypochlorite	
Freshwater		0,00021 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

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls
Appropriate engineering controls

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

Provide washing facilities at the workplace, provide an eye shower or eyewash bottle and mark them.

Individual protection measures, such as personal protective equipment
Eye/face protection

Wear eye/face protection. Safety glasses according to EN 166.

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 according to EN 374. Suitable glove material also for longer, direct contact: PVC (Polyvinyl chloride). NBR (Nitrile rubber). CR (polychloroprenes, Chloroprene rubber). Butyl rubber. fluoroelastomer (FKM). Breakthrough time (maximum wearing time): >480 min.

Skin protection

Use of protective clothing. Personal protective equipment must be determined according to the quantity and concentration of hazardous substances at the workplace. Wear solvent-resistant protective clothing. Safety shoes according to EN 345-347. Take off immediately all contaminated clothing and wash it before reuse.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Safety Data Sheet

according to UK REACH Regulation

Sodium Hypochlorite 0,9 %

Revision date: 06.11.2023

Product code: 18545.xxxxx

Page 5 of 10

Environmental exposure controls

No special measures are necessary.

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state:	Liquid	
Colour:	colourless slightly yellowish	
Odour:	weak nach Chlorine (Cl ₂).	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		not determined
Flammability:		not applicable
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		not determined
Auto-ignition temperature:		not determined
Decomposition temperature:		not determined
pH-Value (at 20 °C):		10-11
Viscosity / kinematic:		not determined
Water solubility: (at 20 °C)		easily soluble
Solubility in other solvents		not determined
Partition coefficient n-octanol/water:		not determined
Vapour pressure:		not determined
Density (at 20 °C):		1,00 g/cm ³
Relative vapour density:		not determined
Particle characteristics:		not applicable

9.2. Other information
Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive.

Self-ignition temperature

Solid:

not applicable

Gas:

not applicable

Oxidizing properties

Not oxidising.

Other safety characteristics

Evaporation rate:

not determined

SECTION 10: Stability and reactivity
10.1. Reactivity

No hazardous reaction when handled and stored according to provisions. Decomposes when heated, releasing oxygen, dichloroxide, chlorine or hydrogen chloride.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Acids Oxidizing agents.

Safety Data Sheet

according to UK REACH Regulation

Sodium Hypochlorite 0,9 %

Revision date: 06.11.2023

Product code: 18545.xxxxx

Page 6 of 10

10.4. Conditions to avoid

UV-radiation/sunlight.

10.5. Incompatible materials

Information is given in subsection 10.3.

10.6. Hazardous decomposition products

Resulting from the use of the product: Chlorine. Decomposes when heated, releasing oxygen, dichloroxide, chlorine or hydrogen chloride.

SECTION 11: Toxicological information
11.1. Information on hazard classes as defined in GB CLP Regulation
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
7681-52-9	sodium hypochlorite				
	oral	LD50 mg/kg 1100	Rat	suppliers SDS.	
	dermal	LD50 mg/kg 20000	Rabbit	suppliers SDS.	

Irritation and corrosivity

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

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.

11.2. Information on other hazards
Endocrine disrupting properties

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

SECTION 12: Ecological information
12.1. Toxicity

Harmful to aquatic life with long lasting effects.

Safety Data Sheet

according to UK REACH Regulation

Sodium Hypochlorite 0,9 %

Revision date: 06.11.2023

Product code: 18545.xxxxx

Page 7 of 10

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
7681-52-9	sodium hypochlorite					
	Acute fish toxicity	LC50 mg/l	0,06	96 h	Oncorhynchus mykiss (Rainbow trout)	suppliers SDS.
	Acute algae toxicity	ErC50 mg/l	0,036	72 h		suppliers SDS.
	Acute crustacea toxicity	EC50 mg/l	0,141	48 h	Daphnia magna (Big water flea)	suppliers SDS.
	Fish toxicity	NOEC mg/l	0,04	28 d	Menidia peninsulae (tidal silverside)	suppliers SDS.
	Crustacea toxicity	NOEC mg/l	0,007	15 d	American oyster (Crassostrea virginica)	suppliers SDS.
	Acute bacteria toxicity	(EC50	>3 mg/l)	3 h	Activated sludge	suppliers SDS.

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

Bioaccumulation is not expected.

Partition coefficient n-octanol/water

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

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

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

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

The product has not been tested.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

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

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

List of Wastes Code - residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

List of Wastes Code - contaminated packaging

Safety Data Sheet

according to UK REACH Regulation

Sodium Hypochlorite 0,9 %

Revision date: 06.11.2023

Product code: 18545.xxxxx

Page 8 of 10

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

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

14.1. UN number or ID number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number or ID number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number or ID number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name: No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es): No dangerous good in sense of this transport regulation.
14.4. Packing group: No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

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

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

Safety Data Sheet

according to UK REACH Regulation

Sodium Hypochlorite 0,9 %

Revision date: 06.11.2023

Product code: 18545.xxxxx

Page 9 of 10

sodium hypochlorite

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s): 1,2,3,4,5,6,7,8,9,11,12,13,15,16.

Rev. 2,0, 11.02.2023, Individual safety data sheet based on 18545_collect

Rev. 2,1; 06.11.2023; general adjustment(s)

Abbreviations and acronyms

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

CAS: Chemical Abstracts Service

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

LL50: Lethal loading, 50%

EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate

NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Regulations concerning the international carriage of dangerous goods by rail

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

IMDG: International Maritime Code for Dangerous Goods

EmS: Emergency Schedules

MFAG: Medical First Aid Guide

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

SVHC: Substance of Very High Concern

For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Skin Corr: Skin corrosion

Eye Dam: Eye damage

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
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H314 Causes severe skin burns and eye damage.

Safety Data Sheet

according to UK REACH Regulation

Sodium Hypochlorite 0,9 %

Revision date: 06.11.2023

Product code: 18545.xxxxx

Page 10 of 10

H318	Causes serious eye damage.
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.
EUH031	Contact with acids liberates toxic gas.

Further Information

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 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.)