

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 09.12.2020

Version number 303

Revision: 09.12.2020

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

#### 1.1 Product identifier

**Trade name** Chemtec Bleach

**UFI:** P300-P0FQ-W00U-G4QX

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

For details on the identifiable uses according to EC-regulation No. 1907/2006 see annex of this safety data sheet.

**Technical function** Chemicals for technical applications

#### Application of the substance / the mixture

Industrial / commercial use

Basic chemical (without special defined application)

bleaching agent

Oxidizing agent

#### 1.3 Details of the supplier of the safety data sheet

##### Manufacturer/Supplier:

Chemtec Chemicals GmbH

August-Siemsen-Straße 13

D-21521 Dassendorf

Germany

Phone: +49 4104 91897 99

E-Mail: [info@ctc-chemtec.de](mailto:info@ctc-chemtec.de)

**Informing department:** Product safety department

#### 1.4 Emergency telephone number:

Medical Emergency information in case of poisoning:

Poison Information Center Mainz - 24h - Phone: +49 (0) 6131 19240 (advisory service in German or English language)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification according to Regulation (EC) No 1272/2008

Met. Corr. 1 H290 May be corrosive to metals.

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.

#### 2.2 Label elements

##### Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

##### Hazard pictograms



GHS05



GHS09

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**Signal word** Danger

**Hazard-determining components of labelling:**

sodium hypochlorite, solution

**Hazard statements**

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

**Precautionary statements**

P260 Do not breathe mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

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

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.

P390 Absorb spillage to prevent material damage.

P403+P235 Store in a well-ventilated place. Keep cool.

**Additional information:**

EUH031 Contact with acids liberates toxic gas.

**2.3 Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

## SECTION 3: Composition/information on ingredients




### 3.2 Mixtures

**Description:**

Mixture of the substances listed below with harmless additions (aqueous solution).

Sodium hypochlorite, solution ( $\geq 150$  g/l active chlorine).

**Dangerous components:**

CAS: 7681-52-9 EINECS: 231-668-3 Reg.nr.: 01-2119488154-34	sodium hypochlorite, solution  Skin Corr. 1B, H314; Eye Dam. 1, H318;  Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1)	10-25%
CAS: 1310-73-2 EINECS: 215-185-5 Reg.nr.: 01-2119457892-27	sodium hydroxide  Met. Corr. 1, H290; Skin Corr. 1A, H314	< 1%

**SVHC**

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

**Additional information**

Specific concentration limits (active matter) :

EUH031:

C  $\geq$  5%

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For the wording of the listed hazard phrases refer to section 16.

#### **SECTION 4: First aid measures**

##### **4.1 Description of first aid measures**

###### **General advice:**

Instantly remove any clothing soiled by the product.

Personal protection for the First Aider.

###### **After inhalation**

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness bring patient into stable side position for transport.

###### **After skin contact**

Rinse immediately with plenty of water. Cover wound with a sterile dressing. Seek medical advice.

###### **After eye contact**

Rinse immediately opened eye for several minutes under running water. Then consult doctor.

###### **After swallowing**

Do not induce vomiting. Drink plenty of water. Call for medical help.

Rinse out mouth with water.

##### **4.2 Most important symptoms and effects, both acute and delayed**

Burning effect and pain to eyes, skin and mucous membranes. After swallowing serious irritation to oral cavity and throat as well as danger of perforation of the gullet.

###### **Information for doctor**

Symptomatic treatment (decontamination, vital functions), no specific antidote is known. To prevent lung damage: Corticosteroid aerosol (e.g. Dexamethason). Symptoms can be delayed.

##### **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

#### **SECTION 5: Firefighting measures**

##### **5.1 Extinguishing media**

###### **Suitable extinguishing agents**

Use fire fighting measures that suit the environment.

Carbon dioxide, extinguishing powder, water jet or alcohol-resistant foam.

##### **5.2 Special hazards arising from the substance or mixture**

Formation of poisonous gases during heating or in fires.

chloric gas

##### **5.3 Advice for firefighters**

###### **Protective equipment:**

See section 8.

Do not inhale explosion gases or combustion gases.

Wear full protective suit with self-contained breathing apparatus.

###### **Additional information**

Endangered containers in the surrounding area should be cooled with a water-hose.

Collect contaminated fire fighting water separately. It must not enter drains.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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#### **SECTION 6: Accidental release measures**

##### **6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment and keep unprotected persons away.

Avoid contact with skin, eyes and clothing. Do not breathe vapour. Ventilate contaminate area thoroughly. Shut off leaks, if possible without personal risk.

##### **6.2 Environmental precautions:**

Do not allow to enter drainage system, surface or ground water.

Damp down gases/fumes/haze with water spray jet.

If large amounts are released, the authorities must be informed.

##### **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

##### **6.4 Reference to other sections**

See Section 8 for information on personal protection equipment.

#### **SECTION 7: Handling and storage**

##### **7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Avoid contact with eyes and skin.

**Information about protection against explosions and fires:** No special measures required.

##### **7.2 Conditions for safe storage, including any incompatibilities**

###### **Storage**

###### **Requirements to be met by storerooms and containers:**

Observe official regulations on storage and handling of water hazardous substances

Never seal containers, tanks and piping systems gastight, as there is a risk of bursting due to the constant development of gas. Protect the product from solar radiation, heat and contamination (e.g. dust) -> strong decomposition.

Do not use containers / pipes made of steel, copper, nickel, zinc or light metals (aluminum) -> risk of fire and explosion.

###### **Information about storage in one common storage facility:**

Do not store together with acids.

Store away from flammable substances.

Store away from reducing agents.

Provide separate collecting vessels.

###### **Further information about storage conditions:**

Protect from heat and direct sunlight.

Do not seal container gastight.

##### **7.3 Specific end use(s)** No further relevant information available.

#### **SECTION 8: Exposure controls/personal protection**

**Additional information about design of technical systems:** No further data; see item 7.

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### 8.1 Control parameters

**Components with critical values that require monitoring at the workplace:**
**CAS: 1310-73-2 sodium hydroxide (<2.5%)**

WEL Short-term value: 2 mg/m<sup>3</sup>

#### DNELs

**CAS: 7681-52-9 sodium hypochlorite, solution**

Oral	DNEL (population)	0.26 mg/kg bw/day (Long-term - systemic effects)
Dermal	DNEL (worker)	0.5 % wt. (Long-term - local effects)
	DNEL (population)	0.5 % wt. (Long-term - local effects)
Inhalative	DNEL (worker)	1.55 mg/m <sup>3</sup> (Long-term - systemic and local effects)
		3.1 mg/m <sup>3</sup> (Acute - systemic and local effects)
	DNEL (population)	1.55 mg/m <sup>3</sup> (Long-term - systemic and local effects)
		3.1 mg/m <sup>3</sup> (Acute - systemic and local effects)

#### PNECs

**CAS: 7681-52-9 sodium hypochlorite, solution**

PNEC aqua	0.00021 mg/l (fresh water)
	0.000042 mg/l (marine water)
PNEC	4.69 mg/l (STP (sewage treatment plant))

**Additional Occupational Exposure Limit Values for possible hazards during processing:**
**CAS: 7782-50-5 chlorine**

WEL Short-term value: 1.5 mg/m<sup>3</sup>, 0.5 ppm

#### Additional information:

The lists that were valid during the compilation were used as basis.

Under normal conditions, chlorine (gas) is only released from the product in negligible amounts, but contact with acids leads to mass (life-threatening) release.

### 8.2 Exposure controls

#### Personal protective equipment

##### General protective and hygienic measures

Keep away from food, beverages and fodder.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

Gases, fumes and aerosols should not be inhaled.

**Breathing equipment:** Use breathing protection in case of insufficient ventilation.

**Recommended filter device for short term use:** Combination filter B-P2

#### Protection of hands:

Protective gloves.

Check protective gloves prior to each use for their proper condition.

#### Material of gloves

Chloroprene rubber, CR, recommended thickness of the material: ≥ 0.5 mm, penetration time: ≥ 480 min.

Nitrile rubber, NBR, recommended thickness of the material: ≥ 0.4 mm, penetration time: ≥ 480 min.

Butylrubber, BR, recommended thickness of the material: ≥ 0.7 mm, penetration time: ≥ 480 min.

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Fluorocarbon rubber (Viton), recommended thickness of the material:  $\geq 0.7$  mm, penetration time:  $\geq 480$  min.

Polyvinylchlorid (PVC), recommended thickness of the material:  $\geq 0.7$  mm, penetration time:  $\geq 480$  Min.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

#### Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Change gloves if notice sign of disenchantment.

**Eye protection:** Tightly sealed safety glasses.

#### Body protection:

Standard protective clothing. Chemical resistant safety-shoes or boots. If skin contact is possible, wear impenetrable protective clothing against this solvent.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

##### General Information

##### Appearance:

<b>Form:</b>	Fluid
<b>Colour:</b>	Yellow
<b>Smell:</b>	Chlorine-like
<b>Odour threshold:</b>	Not determined.

**pH-value (150 g/l) at 20 °C:** 12-13

##### Change in condition

**Melting point/freezing point:**  $< -20$  °C

**Flash point:** Product is non-flammable nor potentially explosive

**Inflammability (solid, gaseous)** Not applicable.

**Decomposition temperature:** Not determined.

**Self-inflammability:** Product is not selfigniting.

**Explosive properties:** Product is not potentially explosive

##### Critical values for explosion:

<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.

**Vapour pressure at 20 °C:** 20 hPa

**Density at 20 °C** 1.21-1.26 g/cm<sup>3</sup>

**Relative density** Not determined.

**Vapour density** Not determined.

**Evaporation rate** Not determined.

##### Solubility in / Miscibility with

**Water:** Fully miscible

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**Partition coefficient: n-octanol/water:** Not determined.

**Viscosity:**

**dynamic at 20 °C:** 3-4 mPas

**kinematic:** Not determined.

**9.2 Other information**

No further relevant information available.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** No further relevant information available.

**10.2 Chemical stability**

**Thermal decomposition / conditions to be avoided:**

Decomposition with low oxygen release at room temperature. Incompatibility with all types of contaminants, especially heavy metal salts, sunlight and heat.

**10.3 Possibility of hazardous reactions**

Reacts with acids releasing chlorine

Reacts with metals forming hydrogen

**10.4 Conditions to avoid** No further relevant information available.

**10.5 Incompatible materials:**

Acids

Reducing agent

**10.6 Hazardous decomposition products:** Formation of chlorine after acidification.

**Additional information:** Sensitive to light.

## SECTION 11: Toxicological information

**11.1 Information on toxicological effects**

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

**LD/LC50 values that are relevant for classification:**

**CAS: 7681-52-9 sodium hypochlorite, solution**

Oral	LD50	> 2000 mg/kg (rat)
Dermal	LD50	> 5000 mg/kg (rabbit)

**Primary irritant effect:**

**Skin corrosion/irritation**

Causes severe skin burns and eye damage.

**Serious eye damage/irritation**

Causes serious eye damage.

**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

**CMR effects (carcinogenicity, mutagenicity and toxicity 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.

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

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity:

**CAS: 7681-52-9 sodium hypochlorite, solution**

LC 50 / 96 h	0.01-0.1 mg/l (fish)
EC 50 / 48 h	0.01-0.1 mg/l (Aquatic invertebrates)
NOEC	0.04 mg/l (fish) (28 d)
	0.007 mg/l (Aquatic invertebrates) (15 d)
	0.0021 mg/l (Algae) (7 d)

### 12.2 Persistence and degradability

Inorganic product, is not removable from water by biological cleaning process

### 12.3 Bioaccumulative potential

No bioaccumulation. The product decomposes rapidly in soil or water.

### 12.4 Mobility in soil

No further relevant information available.

#### Ecotoxicological effects:

##### Remark:

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Harmful to fish, plankton and other waterorganism, caused by pH-shift and release of chlorine.

#### Additional ecological information:

##### General notes:

Danger to drinking water if even small quantities leak into soil.

Water hazard class 2 (Self-assessment): hazardous for water according to german AwsV.

Do not allow product to reach ground water, water bodies or sewage system.

### 12.5 Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

### 12.6 Other adverse effects

No further relevant information available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

The following advice is related to new material and not to any processed products. In case of a mixture with other products other disposal methods may become necessary. If in doubt seek advice from product supplier or from local authorities.

#### Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

#### Waste disposal key number:

Since 01/01/99 the waste code numbers have not only been product-related but are also essentially application-related. The valid waste code number of the application can be obtained from the European waste catalogue.

**Uncleaned packagings:** Disposal must be made according to official regulations.

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**Recommendation:**

*Rented packaging: After optimal emptying, close immediately and return to the supplier without cleaning. Care should be taken that no other materials get into the packaging.*

*Other containers: After complete emptying and cleaning, send to be reconditioned or recycled.*

**Recommended cleaning agent:** Water, if necessary with cleaning agent.

### SECTION 14: Transport information

**14.1 UN-Number**

ADR, IMDG, IATA UN1791

**14.2 UN proper shipping name**

ADR	1791 HYPOCHLORITE SOLUTION
IMDG	HYPOCHLORITE SOLUTION, MARINE POLLUTANT
IATA	HYPOCHLORITE SOLUTION

**14.3 Transport hazard class(es)**

ADR	
Class	8 (C9) Corrosive substances.
Label	8

IMDG, IATA

Class	8 Corrosive substances.
Label	8

**14.4 Packing group**

ADR, IMDG, IATA II

**14.5 Environmental hazards:**

*Product contains environmentally hazardous substances: sodium hypochlorite, solution*

**Marine pollutant:**

Yes  
Symbol (fish and tree)

**Special marking (ADR):**

Symbol (fish and tree)

**14.6 Special precautions for user**

Warning: Corrosive substances.
Kemler Number: 80
EMS Number: F-A, S-B
Segregation groups Hypochlorites
Stowage Category B
Segregation Code SG20 Stow "away from" SGG1-acids

**14.7 Transport in bulk according to**

**Annex II of Marpol and the IBC Code** Not applicable.

**Transport/Additional information:**

ADR

Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
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Transport category	2
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<b>Tunnel restriction code</b>	E
<b>IMDG</b>	
<b>Limited quantities (LQ)</b>	1L
<b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<b>UN "Model Regulation":</b>	UN1791, HYPOCHLORITE SOLUTION, 8, III, ENVIRONMENTALLY HAZARDOUS

### SECTION 15: Regulatory information

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

##### **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

##### **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

##### **Philippines Inventory of Chemicals and Chemical Substances**

All ingredients are listed.

##### **Chinese Chemical Inventory of Existing Chemical Substances**

All ingredients are listed.

##### **Australian Inventory of Industrial Chemicals**

All ingredients are listed.

##### **Korean Existing Chemical Inventory**

All ingredients are listed.

##### **New Zealand Inventory of Chemicals**

All ingredients are listed.

##### **TCSI - Taiwan Chemical Substance Inventory**

All ingredients are listed.

##### **Existing Chemical Substances (Japan)**

All ingredients are listed.

##### **Directive 2012/18/EU**

**Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t

**Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t

**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

##### **National regulations**

##### **Information about limitation of use:**

Employment restrictions concerning young persons must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

##### **Water hazard class:**

Water hazard class 2 (Self-assessment): hazardous for water.

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UBA-Number(s): 815

**15.2 Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

#### SECTION 16: Other information

*These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

##### Relevant phrases

*Complete wording of hazard statements and risk phrases (H- and R-phrases) mentioned in section 3. These phrases refer to the constituents. The labelling for this product is stated in section 2.*

*H290 May be corrosive to metals.*

*H314 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.*

**Department issuing data specification sheet:** see item 1: Informing department

##### Abbreviations and acronyms:

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organisation*

*LEV: Local Exhaust Ventilation*

*RPE: Respiratory Protective Equipment*

*RCR: Risk Characterisation Ratio (RCR= PEC/PNEC and RCR= Estimated Exposition/DNEL)*

*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*

*CLP: Classification, Labelling and Packaging (Regulation (EC) No. 1272/2008)*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

*ELINCS: European List of Notified Chemical Substances*

*CAS: Chemical Abstracts Service (division of the American Chemical Society)*

*DNEL: Derived No-Effect Level (REACH)*

*PNEC: Predicted No-Effect Concentration (REACH)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*SVHC: Substance of Very High Concern*

*SVHC: Substances of Very High Concern*

*vPvB: very Persistent and very Bioaccumulative*

*Met. Corr. 1: Corrosive to metals – Category 1*

*Skin Corr. 1A: Skin corrosion/irritation – Category 1A*

*Skin Corr. 1B: Skin corrosion/irritation – Category 1B*

*Eye Dam. 1: Serious eye damage/eye irritation – Category 1*

*Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1*

*Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1*

*Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*

**\* Data compared to the previous version altered.**