

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### INWASAN C1

Revision date: 01.10.2019

Product code: 20140702INWASANC1

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

### 1.1. Product identifier

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

#### Use of the substance/mixture

Water treatment chemicals

#### Uses advised against

No information available.

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

Company name:	INWATEC GmbH & Co. KG	
	Innovative Wassertechnik	
Street:	Römerstrasse 131 - 133	
Place:	D-50127 Bergheim	
Telephone:	+49 (0) 2271 / 995510	Telefax: +49 (0) 2271 / 9955150
e-mail:	info@inwatec.com	
Internet:	www.inwatec.com	
Responsible Department:	Abteilung: Anwendungstechnik	
	E-Mail: info@inwatec.com	

### 1.4. Emergency telephone number:

+49 (0) 2271/995510 Mon-Fri: 9:00 - 16:00

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No. 1272/2008

Hazard categories:

Substance or mixture corrosive to metals: Met. Corr. 1

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1B

Serious eye damage/eye irritation: Eye Dam. 1

Hazardous to the aquatic environment: Aquatic Acute 1

Hazardous to the aquatic environment: Aquatic Chronic 3

Hazard Statements:

May be corrosive to metals.

Harmful in contact with skin.

Causes severe skin burns and eye damage.

Causes serious eye damage.

Very toxic to aquatic life.

Harmful to aquatic life with long lasting effects.

### 2.2. Label elements

#### Regulation (EC) No. 1272/2008

#### Hazard components for labelling

Natriumhypochloritlösung > 5 - < 20 % Cl aktiv

Natriumchlorit

Signal word: Danger

Pictograms:



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**Hazard statements**

- H290 May be corrosive to metals.  
 H312 Harmful in contact with skin.  
 H314 Causes severe skin burns and eye damage.  
 H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
 P264 Wash hands thoroughly after handling.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 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.

**Special labelling of certain mixtures**

- EUH031 Contact with acids liberates toxic gas.

**Additional advice on labelling**

The product is classified and labelled according to EC directives or corresponding national laws.

**2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

**Chemical characterization**

Formulation of preparations (mixtures)

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
7681-52-9	Natriumhypochloritlösung > 5 - < 20 % Cl aktiv			< 25 %
	231-668-3		01-2119488154-34	
	Skin Corr. 1B, Aquatic Acute 1 (M-Factor = 10); H314 H400 EUH031			
7758-19-2	Natriumchlorit			< 10 %
	231-836-6		01-2119529240-51	
	Ox. Sol. 1, Acute Tox. 2, Acute Tox. 3, Skin Corr. 1A, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 3; H271 H310 H301 H314 H373 H400 H412 EUH032 EUH071			

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

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

Remove contaminated, saturated clothing immediately. Self-protection of the first aider Remove persons to safety. Do not leave affected person unattended.

**After inhalation**

Provide fresh air. In case of inhalation of aerosols/spray mist/splash spots: Consult physician.

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#### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately.

#### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

#### After ingestion

Rinse mouth immediately and drink plenty of water. In all cases of doubt, or when symptoms persist, seek medical advice. If unconscious place in recovery position and seek medical advice. Do NOT induce vomiting.

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

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

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

Treat symptomatically. ggf. Magenspülung

### SECTION 5: Firefighting measures

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

##### **Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

##### **Unsuitable extinguishing media**

No information available.

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

In case of fire may be liberated: Hydrogen chloride (HCl). Chlorine (Cl<sub>2</sub>). ClO<sub>2</sub>

Product is not flammable; however, it spews and dries flammability of combustible materials.

Danger of bursting container.

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

In case of fire: Wear self-contained breathing apparatus. Wear chemical resistant suit. Use water spray jet to protect personnel and to cool endangered containers.

#### **Additional information**

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**

Wear personal protection equipment. Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Waste which releases toxic or very toxic gases in contact with water, air or an acid.

#### **6.2. Environmental precautions**

Prevent spread over a wide area (e.g. by containment or oil barriers).

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

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Do not allow to enter into surface water or drains.

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

Treat the recovered material as prescribed in the section on waste disposal.

### SECTION 7: Handling and storage

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

##### **Advice on safe handling**

Handle and open container with care. Keep/Store only in original container.

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**Advice on protection against fire and explosion**

No special precautionary measures are necessary.

**Further information on handling**

ggf. Merkblätter der BG-Chemie: M004

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

**Requirements for storage rooms and vessels**

Keep only in the original container in a cool, well-ventilated place.

**Hints on joint storage**

Do not store together with: Food and feedingstuffs. acid. Reducing agent. Combustible substance

**Further information on storage conditions**

Conditions to avoid: frost.

**7.3. Specific end use(s)**

No information available.

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

**8.1. Control parameters**

**DNEL/DMEL values**

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
7758-19-2	Natriumchlorit		
Worker DNEL, acute	dermal	systemic	0,58 mg/kg bw/day
Worker DNEL, acute	inhalation	systemic	0,41 mg/m <sup>3</sup>
Worker DNEL, long-term	inhalation	systemic	0,41 mg/m <sup>3</sup>
Consumer DNEL, acute	oral	systemic	0,029 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,029 mg/kg bw/day
Consumer DNEL, acute	dermal	systemic	0,29 mg/kg bw/day
Consumer DNEL, long-term	dermal	systemic	0,29 mg/kg bw/day
Consumer DNEL, acute	inhalation	systemic	0,1 mg/m <sup>3</sup>
Consumer DNEL, long-term	inhalation	systemic	0,1 mg/m <sup>3</sup>

**PNEC values**

CAS No	Substance	
Environmental compartment	Value	
7758-19-2	Natriumchlorit	
Freshwater	650 mg/l	
Freshwater (intermittent releases)	0,0065 mg/l	
Marine water	65 mg/l	
Micro-organisms in sewage treatment plants (STP)	1 mg/l	

**Additional advice on limit values**

10049-04-4 Chlordioxid  
AGW 0,28 mg/m<sup>3</sup>, 0,1 ml/m<sup>3</sup>

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#### **8.2. Exposure controls**

##### **Protective and hygiene measures**

Do not eat, drink, smoke or sneeze at the workplace. Thorough skin-cleansing after handling the product.

##### **Eye/face protection**

Tightly sealed safety glasses.

##### **Hand protection**

Chemical-resistant protective gloves (EN 374), Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time to EN 374), eg. B. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinyl chloride (0.7 mm), etc. .. Because of the large variety of types, the instructions for use of the manufacturer must be observed.

##### **Skin protection**

Personal protection equipment

##### **Respiratory protection**

With correct and proper use, and under normal conditions, breathing protection is not required.

### SECTION 9: Physical and chemical properties

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

Physical state:	liquid
Colour:	light yellow
Odour:	pungent
pH-Value (at 20 °C):	> 11

##### **Changes in the physical state**

Melting point:	- 25 °C
Initial boiling point and boiling range:	ca. 100 °C
Vapour pressure: (at 20 °C)	14 hPa
Density (at 25 °C):	ca. 1,2 g/cm <sup>3</sup>
Water solubility: (at 25 °C)	completely miscible
Viscosity / dynamic: (at 20 °C)	2,4 mPa·s
Evaporation rate:	< 1

### SECTION 10: Stability and reactivity

#### **10.1. Reactivity**

acid. Reducing agents. Flammable solids

#### **10.2. Chemical stability**

May cause decomposition by long-term light influence. Thermal decomposition can lead to the escape of irritating gases and vapours. Decomposition takes place from temperatures above: 7 °C

#### **10.3. Possibility of hazardous reactions**

Contact with acids liberates toxic gas.

#### **10.4. Conditions to avoid**

Keep away from heat.

#### **10.5. Incompatible materials**

Materials to avoid: Reducing agents.

#### **10.6. Hazardous decomposition products**

Chlorine (Cl<sub>2</sub>). Hydrochloric gas. Oxygen. ClO<sub>2</sub>

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**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Toxicokinetics, metabolism and distribution**

Dermal: Gesundheitsschäden bei Hautkontakt.

**Acute toxicity**

Harmful in contact with skin.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7758-19-2	Natriumchlorit				
	oral	LD50 mg/kg 284	Ratte		
	dermal	LD50 mg/kg 134	Kaninchen		

**Irritation and corrosivity**

Causes severe skin burns and eye damage.

Causes serious eye damage.

**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.

No information available.

**Aspiration hazard**

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

**Additional information on tests**

No information available.

**Practical experience**

**Observations relevant to classification**

No information available.

**Other observations**

Irritating to respiratory system.

**Further information**

No information available.

**SECTION 12: Ecological information**

**12.1. Toxicity**

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
7758-19-2	Natriumchlorit					
	Acute fish toxicity	LC50	105 mg/l	96 h	Cyprinodon variegatus	
	Acute algae toxicity	ErC50	1 mg/l	96 h	Scenedesmus capricornutum	
	Acute crustacea toxicity	EC50	<1 mg/l	48 h	Daphnia magna	

#### 12.2. Persistence and degradability

Technically correct releases of minimal concentrations to adapted biological sewage treatment facility, will not disturb the biodegradability of activated sludge.

#### 12.3. Bioaccumulative potential

No information available.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
7758-19-2	Natriumchlorit	-2,7

#### 12.4. Mobility in soil

No information available.

#### 12.5. Results of PBT and vPvB assessment

No information available.

#### 12.6. Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations

Waste key product: Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)".

#### List of Wastes Code - residues/unused products

061301 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from inorganic chemical processes not otherwise specified; inorganic plant protection products, wood-preserving agents and other biocides.; hazardous waste

#### List of Wastes Code - used product

180106 WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (EXCEPT KITCHEN AND RESTAURANT WASTES NOT ARISING FROM IMMEDIATE HEALTH CARE); wastes from natal care, diagnosis, treatment or prevention of disease in humans; chemicals consisting of or containing hazardous substances; hazardous waste

#### List of Wastes Code - contaminated packaging

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

Contaminated packages must be completely emptied and can be re-used following proper cleaning. Packing which cannot be properly cleaned must be disposed of.

Die EAK-Abfallschlüssel sind nicht produkt- sondern herkunftsbezogen. der Hersteller kann daher für die Produkte, die in unterschiedlichen Branchen Anwendung finden, keinen Abfallschlüssel angeben. Die aufgeführten Schlüssel sind als Empfehlung für den Anwender zu verstehen.

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

<b>14.1. UN number:</b>	UN 3266
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. enthält Natriumhypochlorit und Natriumchlorit
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8
Classification code:	C5
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E

**Inland waterways transport (ADN)**

<b>14.1. UN number:</b>	UN 3266
<b>14.2. UN proper shipping name:</b>	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. enthält Natriumhypochlorit und Natriumchlorit
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8
Classification code:	C5
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2

**Marine transport (IMDG)**

<b>14.1. UN number:</b>	UN 3266
<b>14.2. UN proper shipping name:</b>	ÄTZENDER BASISCHER ANORGANISCHER FLÜSSIGER STOFF, N.A.G. enthält Natriumhypochlorit und Natriumchlorit
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-A, S-B

**Air transport (ICAO-TI/IATA-DGR)**

<b>14.1. UN number:</b>	UN 3266
<b>14.2. UN proper shipping name:</b>	ÄTZENDER BASISCHER ANORGANISCHER FLÜSSIGER STOFF, N.A.G. enthält Natriumhypochlorit und Natriumchlorit
<b>14.3. Transport hazard class(es):</b>	8
<b>14.4. Packing group:</b>	II
Hazard label:	8
Special Provisions:	A3 A803
Limited quantity Passenger:	0.5 L
Passenger LQ:	Y840
Excepted quantity:	E2



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

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: yes

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

2004/42/EC (VOC): No information available.

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juvenils 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 contaminating class (D): 2 - clearly water contaminating

Biocide registry number: N-57655

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 1,16.

**Relevant H and EUH statements (number and full text)**

H271	May cause fire or explosion; strong oxidiser.
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H310	Fatal in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
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.
EUH032	Contact with acids liberates very toxic gas.
EUH071	Corrosive to the respiratory tract.

**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 above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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