

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

### 1.1 Product identifier

· **Trade name:** **CHLORODES 150**

· **CAS Number:**

7681-52-9

· **EC number:**

231-668-3

· **Index number:**

017-011-00-1

· **Registration number** 01-2119488154-34-XXXX

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

· **Sector of Use**

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

· **Product category** PC8 Biocidal products

· **Application of the substance / the mixture** Biocide

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Tensio

Doornpark 36

9120 Beveren

Belgium

Tel.: +32 3 755 48 74

Fax.: +32 3 755 51 55

e-mail: [info@tensio.be](mailto:info@tensio.be)

· **Further information obtainable from:** Product Safety Departement: [SDS@tensio.be](mailto:SDS@tensio.be)

· **1.4 Emergency telephone number:** +44 700 393 7989

## SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

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



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

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

· **Hazard pictograms** GHS05, GHS07, GHS09

· **Signal word** Danger

(Contd. on page 2)

**Trade name: CHLORODES 150**

(Contd. of page 1)

- **Hazard-determining components of labelling:**  
sodium hypochlorite, solution
- **Hazard statements**  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H400 Very toxic to aquatic life.
- **Precautionary statements**  
P260 Do not breathe dusts or mists.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face 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.  
P321 Specific treatment (see on this label).  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **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

- **3.1 Chemical characterisation: Substances**
- **CAS No. Description**  
7681-52-9 sodium hypochlorite, solution
- **Identification number(s)**
- **EC number:** 231-668-3
- **Index number:** 017-011-00-1
- **Description:** sodium hypochlorite solution 170 g/l

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**  
Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
If skin irritation continues, consult a doctor.  
Immediately rinse with water.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Call for a doctor immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**  
Skin contact: burns, pain, redness.

(Contd. on page 3)

**Trade name: CHLORODES 150**

(Contd. of page 2)

*Eye contact: lesions, irritations, pain, tearing, redness.*

*Inhalation: malaise, dizziness*

*Ingestion: burns, irritation, pain.*

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

*Treat symptomatically. An eyewash is recommended in the immediate work area.*

### SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

· **For safety reasons unsuitable extinguishing agents:** Non

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

*During heating or in case of fire poisonous gases are produced.*

· **5.3 Advice for firefighters**

· **Protective equipment:** Mouth respiratory protective device.

### SECTION 6: Accidental release measures

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

*Mount respiratory protective device.*

*Wear protective equipment. Keep unprotected persons away.*

· **6.2 Environmental precautions:**

*Inform respective authorities in case of seepage into water course or sewage system.*

*Dilute with plenty of water.*

*Do not allow to enter sewers/ surface or ground water.*

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

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

*Use neutralising agent.*

*Dispose contaminated material as waste according to item 13.*

*Ensure adequate ventilation.*

· **6.4 Reference to other sections**

*See Section 7 for information on safe handling.*

*See Section 8 for information on personal protection equipment.*

*See Section 13 for disposal information.*

### SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

*Store in cool, dry place in tightly closed receptacles.*

*Ensure good ventilation/exhaustion at the workplace.*

*Prevent formation of aerosols.*

· **Information about fire - and explosion protection:** Keep respiratory protective device available.

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

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store in a cool location.

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

*Store away from reducing agents.*

*Store away from flammable substances.*

*Do not store together with acids.*

· **Further information about storage conditions:** Keep container tightly sealed.

(Contd. on page 4)

**Trade name: CHLORODES 150**

(Contd. of page 3)

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

### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**  
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**  
<http://industrialcatalogue.ansell.eu/en/chemicalagents>  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

### 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>Odour:</b>	Characteristic

(Contd. on page 5)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 18.12.2018

Version number 3

Revision: 10.10.2017

Trade name: **CHLORODES 150**

(Contd. of page 4)

· <b>Odour threshold:</b>	Not determined.
· <b>pH-value:</b>	Not determined.
· <b>Change in condition</b> <b>Melting point/freezing point:</b>	<-16 °C
<b>Initial boiling point and boiling range:</b>	Undetermined.
· <b>Flash point:</b>	Not applicable
· <b>Flammability (solid, gas):</b>	Not applicable.
· <b>Decomposition temperature (SADT):</b>	Not determined.
· <b>Auto-ignition temperature:</b>	Not determined.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b> <b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	17 hPa
· <b>Density at 20 °C:</b>	1.22 g/cm <sup>3</sup>
· <b>Bulk density:</b>	1,220 kg/m <sup>3</sup>
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Fully miscible.
· <b>Partition coefficient: n-octanol/water:</b>	Not determined.
· <b>Viscosity:</b> <b>Dynamic at 20 °C:</b>	2.65 mPas
<b>Kinematic:</b>	Not determined.
· <b>9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability** decomposition from 10 ° c
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**  
Harmful if swallowed.

(Contd. on page 6)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 18.12.2018

Version number 3

Revision: 10.10.2017

Trade name: **CHLORODES 150**

(Contd. of page 5)

· <b>LD/LC50 values relevant for classification:</b>		
· <b>CAS: 7681-52-9 sodium hypochlorite, solution</b>		
Oral	LD50	5,800 mg/kg (mouse)
		1,100 mg/kg (rat) (OECD Test Guideline 401)
Dermal	LD50	>20,000 mg/kg (rabbit) (OECD Test Guideline 402)
Inhalative	LC50	>10.5 mg/kg (rat) (OECD Test Guideline 403)

- **Primary irritant effect:**

- **Skin corrosion/irritation**

- Causes severe skin burns and eye damage.

- **Serious eye damage/irritation**

- Causes severe skin burns and 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.

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

## SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

· <b>CAS: 7681-52-9 sodium hypochlorite, solution</b>		
LC50/ 96h	0.06 mg/l (fish)	
EC50/ 48h	0.141 mg/l (Daphnia magna) (OECD Test Guideline 202)	

- **12.2 Persistence and degradability** Not persistence

- **12.3 Bioaccumulative potential** not bioaccumulative

- **12.4 Mobility in soil** No further relevant information available.

- **Ecotoxicological effects:**

- **Remark:** Very toxic for fish

- **Additional ecological information:**

- **General notes:**

Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water

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

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Danger to drinking water if even small quantities leak into the ground.

The surfactants ingredients of the product are biodegradable according to the requirements of regulation 648/2004/EC.

Very toxic for aquatic organisms

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values.

A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

- **12.5 Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

(Contd. on page 7)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 18.12.2018

Version number 3

Revision: 10.10.2017

Trade name: CHLORODES 150

(Contd. of page 6)

- **12.6 Other adverse effects** No further relevant information available.

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### SECTION 14: Transport information

· <b>ADR, IMDG, IATA</b>	UN1791
· <b>14.2 UN proper shipping name</b>	
· <b>ADR</b>	UN1791 HYPOCHLORITE SOLUTION, ENVIRONMENTALLY HAZARDOUS
· <b>IMDG</b>	HYPOCHLORITE SOLUTION, MARINE POLLUTANT
· <b>IATA</b>	HYPOCHLORITE SOLUTION
· <b>Class</b>	8 Corrosive substances.
· <b>Label</b>	8
· <b>ADR, IMDG, IATA</b>	II
· <b>14.5 Environmental hazards:</b>	
· <b>Marine pollutant:</b>	Yes Symbol (fish and tree)
· <b>Special marking (ADR):</b>	Symbol (fish and tree)
· <b>14.6 Special precautions for user</b>	Warning: Corrosive substances.
· <b>Danger code (Kemler):</b>	80
· <b>EMS Number:</b>	F-A, S-B
· <b>Segregation groups</b>	Hypochlorites
· <b>Stowage Category</b>	B
· <b>Segregation Code</b>	SG20 Stow "away from" acids
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <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>Transport category</b>	2
· <b>Tunnel restriction code</b>	E
· <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

(Contd. on page 8)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 18.12.2018

Version number 3

Revision: 10.10.2017

Trade name: **CHLORODES 150**

(Contd. of page 7)

· <b>UN "Model Regulation":</b>	UN 1791 HYPOCHLORITE SOLUTION, 8, II, ENVIRONMENTALLY HAZARDOUS
---------------------------------	--

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**  
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms** GHS05, GHS07, GHS09
- **Signal word** Danger
- **Hazard-determining components of labelling:**  
sodium hypochlorite, solution
- **Hazard statements**  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H400 Very toxic to aquatic life.
- **Precautionary statements**

P260	Do not breathe dusts or mists.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face 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.
P321	Specific treatment (see on this label).
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Contact:**  
Wim Lampaert  
MSc Chemistry
- **Abbreviations and acronyms:**  
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 Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent

(Contd. on page 9)



# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 18.12.2018

Version number 3

Revision: 10.10.2017

**Trade name: CHLORODES 150**

(Contd. of page 8)

*PBT: Persistent, Bioaccumulative and Toxic*

*vPvB: very Persistent and very Bioaccumulative*

*Acute Tox. 4: Acute toxicity – Category 4*

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

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

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

GB