

**Safety data sheet**  
**according to 1907/2006/EC, Article 31**

Printing date 25.01.2024

Version number 5.02 (replaces version 5.01)

Revision: 25.01.2024

**1 Identification of the substance/mixture and of the company/undertaking**

· **1.1 Product identifier**

- **Trade name:** **CHLORODES CIP SV**
- **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
- **Product category** PC35 Washing and cleaning products (including solvent based 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

· **Further information obtainable from:**

Product Safety Departement: SDS@tensio.be

· **1.4 Emergency telephone number:**

+44 700 393 7989

**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. 1A H314 Causes severe skin burns and eye damage.  
Aquatic Chronic 1 H410 Very 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 GB CLP regulation.

· **Hazard pictograms**



GHS05 GHS09

· **Signal word**

Danger

· **Hazard statements**

H290 May be corrosive to metals.  
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.

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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.

EUH031 Contact with acids liberates toxic gas.

- **Additional information:**
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 1310-73-2 EINECS: 215-185-5 Reg.nr.: 01-2119457892-27-XXXX	sodium hydroxide Skin Corr. 1A, H314; Acute Tox. 4, H302 Specific concentration limits: Skin Corr. 1A; H314: C ≥ 5 % Skin Corr. 1B; H314: 2 % ≤ C < 5 % Skin Irrit. 2; H315: 0.5 % ≤ C < 2 % Eye Irrit. 2; H319: 0.5 % ≤ C < 2 %	≥5–<10%
CAS: 1310-58-3 EINECS: 215-181-3 Reg.nr.: 01-2119487136-33-XXXX	potassium hydroxide Skin Corr. 1A, H314; Acute Tox. 4, H302 Specific concentration limits: Skin Corr. 1A; H314: C ≥ 5 % Skin Corr. 1B; H314: 2 % ≤ C < 5 % Skin Irrit. 2; H315: 0.5 % ≤ C < 2 % Eye Irrit. 2; H319: 0.5 % ≤ C < 2 %	≥2.5–<5%
CAS: 7681-52-9 EINECS: 231-668-3 Reg.nr.: 01-2119488154-34-XXXX	sodium hypochlorite, solution Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=1); Acute Tox. 4, H302, EUH031 Specific concentration limit: EUH031: C ≥ 5 %	≥1–<2.5%

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

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#### 4 First aid measures

##### · 4.1 Description of first aid measures

- **General information:** *IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
Immediately call a POISON CENTER/doctor.  
Immediately remove any clothing soiled by the product.*
- **After inhalation:** *In case of unconsciousness place patient stably in side position for transportation.*
- **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*
- **After eye contact:** *Rinse opened eye for several minutes under running water. Then consult a doctor.*
- **After swallowing:** *Drink plenty of water and provide fresh air. Call for a doctor immediately.  
Do not induce vomiting; call for medical help immediately.*

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

*Skin contact: burns, pain, redness.  
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.*

#### 5 Firefighting measures

##### · 5.1 Extinguishing media

##### · Suitable extinguishing agents:

*Use fire extinguishing methods suitable to surrounding conditions.*

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

*Formation of toxic gases is possible during heating or in case of fire.*

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

##### · 5.3 Advice for firefighters

##### · Protective equipment:

*Wear self-contained respiratory protective device.  
Mouth respiratory protective device.*

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**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:**

Do not allow product to reach sewage system or any water course. 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 section 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.

**7 Handling and storage**

· **7.1 Precautions for safe handling**

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 foodstuffs.

Store away from ammonium salts and separated from acids.

Do not store together with acids.

· **Further information about storage conditions:**

Store in a cool place.

Store in the dark.

Protect from contamination.

Do not seal receptacle gas tight.

Protect from heat and direct sunlight.

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

**8 Exposure controls/personal protection**

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

**CAS: 1310-73-2 sodium hydroxide (≥5–<10%)**

WEL (Great Britain) Short-term value: 2 mg/m<sup>3</sup>

**CAS: 1310-58-3 potassium hydroxide (≥2.5–<5%)**

WEL (Great Britain) Short-term value: 2 mg/m<sup>3</sup>

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Appropriate engineering controls**

No further data; see section 7.

· **Individual protection measures, such as 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:**

Use suitable respiratory protective device only when aerosol or mist is formed.

Filter B

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.

· **Hand protection**



Protective gloves

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

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

· **Material of gloves**

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.4 mm

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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· **Penetration time of glove material**

For the mixture of chemicals mentioned in header 3 the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 1).

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

· **Eye/face protection**



Tightly sealed goggles

· **Body protection:**

Alkaline resistant protective clothing

**9 Physical and chemical properties**

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· <b>Colour:</b>	Yellow
· <b>Odour:</b>	Chlorine-like
· <b>Odour threshold:</b>	Not determined.
· <b>Melting point/freezing point:</b>	Undetermined.
· <b>Boiling point or initial boiling point and boiling range</b>	100 °C
· <b>Flammability</b>	Not applicable.
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.
· <b>Flash point:</b>	Not applicable.
· <b>Decomposition temperature (SADT):</b>	Not determined.
· <b>pH at 20 °C</b>	12.3 (OECD 122)
· <b>Viscosity:</b>	
· <b>Kinematic viscosity at 40 °C</b>	1.2 mm <sup>2</sup> /s (OECD 114)
· <b>Dynamic:</b>	Not determined.
· <b>Solubility</b>	
· <b>water:</b>	Fully miscible.
· <b>Partition coefficient n-octanol/water (log value)</b>	Not determined.
· <b>Vapour pressure at 20 °C:</b>	23 hPa
· <b>Density and/or relative density</b>	
· <b>Density at 20 °C:</b>	1.156 g/cm <sup>3</sup> (REACH A.3.)
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.

· **9.2 Other information**

· <b>Appearance:</b>	
· <b>Form:</b>	Fluid

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· **Important information on protection of health and environment, and on safety.**

- **Ignition temperature:** *Product is not selfigniting.*
- **Explosive properties:** *Product does not present an explosion hazard.*
- **Change in condition**
- **Evaporation rate** *Not determined.*

· **Information with regard to physical hazard classes**

- **Explosives** *Void*
- **Flammable gases** *Void*
- **Aerosols** *Void*
- **Oxidising gases** *Void*
- **Gases under pressure** *Void*
- **Flammable liquids** *Void*
- **Flammable solids** *Void*
- **Self-reactive substances and mixtures** *Void*
- **Pyrophoric liquids** *Void*
- **Pyrophoric solids** *Void*
- **Self-heating substances and mixtures** *Void*
- **Substances and mixtures, which emit flammable gases in contact with water** *Void*
- **Oxidising liquids** *Void*
- **Oxidising solids** *Void*
- **Organic peroxides** *Void*
- **Corrosive to metals** *May be corrosive to metals.*
- **Desensitised explosives** *Void*

**10 Stability and reactivity**

- **10.1 Reactivity** *No further relevant information available.*
- **10.2 Chemical stability** *Stable under the handling and storage conditions recommended in Chapter 7.*
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **10.3 Possibility of hazardous reactions** *Under handling and storage conditions recommended in chapter 7: no dangerous reaction known.*
- **10.4 Conditions to avoid** *Avoid reducing agents.  
Avoid ammonium salts.  
Keep away from acids.  
High temperatures and direct sunlight*
- **10.5 Incompatible materials:** *No further relevant information available.*
- **10.6 Hazardous decomposition products:** *Under recommended handling and storage conditions in chapter 7, no known hazardous decomposition products. See Chapter 5 for combustion products.*

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**11 Toxicological information**

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values relevant for classification:**

**CAS: 1310-73-2 sodium hydroxide**

Oral	LD50	2,000 mg/kg (rat)
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**CAS: 1310-58-3 potassium hydroxide**

Oral	LD50	273 mg/kg (rat)
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- **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.
- **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**

· **Endocrine disrupting properties**

None of the ingredients is listed.

**12 Ecological information**

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:** Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

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

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

*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.*

### 13 Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation** *Dispose of the product and / or its packaging as hazardous waste. 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.*

### 14 Transport information

· **14.2 UN proper shipping name**

· **ADR** *UN1719 CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, POTASSIUM HYDROXIDE), ENVIRONMENTALLY HAZARDOUS*

· **IMDG** *CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, POTASSIUM HYDROXIDE), MARINE POLLUTANT*

· **IATA** *CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, POTASSIUM HYDROXIDE)*

· **Class** *8 Corrosive substances.*

· **Label** *8*

· **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.*

· **Hazard identification number (Kemler code):** *80*

· **EMS Number:** *F-A,S-B*

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· <b>Segregation groups</b>	Alkalis
· <b>Stowage Category</b>	A
· <b>Segregation Code</b>	SG22 Stow "away from" ammonium salts SG35 Stow "separated from" SGG1-acids
· <b>14.7 Maritime transport in bulk according to IMO instruments</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
· <b>UN "Model Regulation":</b>	UN 1719 CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE, POTASSIUM HYDROXIDE), 8, II, ENVIRONMENTALLY HAZARDOUS

**15 Regulatory information**

· <b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
· <b>Labelling according to Regulation (EC) No 1272/2008</b>	The product is classified and labelled according to the GB CLP regulation.
· <b>Hazard pictograms</b>	  GHS05 GHS09
· <b>Signal word</b>	Danger
· <b>Hazard statements</b>	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H410 Very toxic to aquatic life with long lasting effects.
· <b>Precautionary statements</b>	P260 Do not breathe dust/fume/gas/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].

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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.*

· **Directive 2012/18/EU**  
· **Named dangerous substances - ANNEX I**

*None of the components are listed.*  
*None of the ingredients is listed.*

· **Seveso category**  
· **Qualifying quantity (tonnes) for the application of lower-tier requirements**

*E1 Hazardous to the Aquatic Environment*

*100 t*

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

*200 t*

· **15.2 Chemical safety assessment:**

*A Chemical Safety Assessment has not been carried out.*

**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.*

· **Relevant phrases**

H302 *Harmful if swallowed.*  
H314 *Causes severe skin burns and eye damage.*  
H315 *Causes skin irritation.*  
H318 *Causes serious eye damage.*  
H319 *Causes serious eye irritation.*  
H400 *Very toxic to aquatic life.*  
H410 *Very toxic to aquatic life with long lasting effects.*  
EUH031 *Contact with acids liberates toxic gas.*

· **Contact:**

*Wim Lampaert*  
*MSc Chemistry*

· **Abbreviations and acronyms:**

*ADR: Accord relatif au transport international 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*  
*ELINCS: European List of Notified Chemical Substances*  
*CAS: Chemical Abstracts Service (division of the American Chemical Society)*  
*LC50: Lethal concentration, 50 percent*  
*LD50: Lethal dose, 50 percent*  
*PBT: Persistent, Bioaccumulative and Toxic*  
*vPvB: very Persistent and very Bioaccumulative*  
*Met. Corr. 1: Corrosive to metals – Category 1*  
*Acute Tox. 4: Acute toxicity – Category 4*  
*Skin Corr. 1A: Skin corrosion/irritation – Category 1A*

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*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*

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

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