

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

#### 1.1. GHS product identifier

Product form	: Substance
Trade name	: SODIUM HYPOCHLORITE 3.5 %
Chemical name	: sodium hypochlorite, solution... % Cl active
Type of product	: Solution
EC-No.	: 231-668-3
EC Index-No.	: 017-011-00-1
CAS-No.	: 7681-52-9
Product code	: SODIUM HYPOCHLORITE 3.5 %
Formula	: NaOCl
Product group	: Trade product

#### 1.2. Other means of identification

No additional information available

#### 1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture	: Disinfectant
Recommended uses and restrictions	: Product for industrial use only

#### 1.4. Supplier's details

ImproChem(Pty) Ltd T/A AECI Water  
1 Wharhirst Road  
Umbogintwini – Kwa Zulu Natal  
South Africa  
T +27(31) 949 8200

#### 1.5. Emergency phone number

Emergency number : 0800 SPILLS or 0800 774557

### SECTION 2: Hazard identification

#### 2.1. GHS classification of the substance/mixture and any national or regional information

##### Classification according to the United Nations GHS

Acute toxicity (oral) Not classified	
Acute toxicity (dermal) Not classified	
Acute toxicity (inhalation:dust,mist) Not classified	
Skin corrosion/irritation, Category 1B	H314
Serious eye damage/eye irritation, Category 1	H318
Hazardous to the aquatic environment – Acute Hazard, Category 1	H400
Hazardous to the aquatic environment – Chronic Hazard, Category 1	H410

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects : Causes eye irritation,Contact with acids liberates toxic gas,Causes severe skin burns and eye damage,Causes serious eye damage,Very toxic to aquatic life with long lasting effects,Causes skin irritation,Causes serious eye irritation,Harmful to aquatic life with long lasting effects.

# SODIUM HYPOCHLORITE 3.5 %

## Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9

### 2.2. GHS label elements, including precautionary statements

#### Labelling according to the United Nations GHS

Hazard pictograms (GHS ZA) :



Signal word (GHS-ZA) :

Danger

Hazard statements (GHS ZA) :

H314 - Causes severe skin burns and eye damage  
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (GHS ZA) :

P101 - If medical advice is needed, have product container or label at hand.  
P102 - Keep out of reach of children.  
P260 - Do not breathe dusts or mists.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/....

### 2.3. Other hazards which do not result in classification or are not covered by the GHS

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Chemical name :

sodium hypochlorite, solution... % Cl active

Product identifiers: See section 1.1

Name	Product identifier	%	Classification according to the United Nations GHS
SODIUM HYPOCHLORITE	CAS-No.: 7681-52-9	3 – 5	Acute Tox. Not classified (Oral) Acute Tox. Not classified (Dermal) Acute Tox. Not classified (Inhalation:dust,mist) Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-statements: see section 16

### 3.2. Mixture

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of necessary first aid measures

First-aid measures general :

Call a physician immediately.

First-aid measures after inhalation :

Remove person to fresh air and keep comfortable for breathing. Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact :

Rinse with water. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Treat symptomatically. Seek medical attention if ill effect develops. Rinse skin with water/shower. Call a physician immediately.

First-aid measures after eye contact :

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion :

Rinse mouth. Do not induce vomiting. Call a physician immediately.

### 4.2. Most important symptoms/effect, acute and delayed

Symptoms/effects after inhalation :

Irritation of the respiratory tract.

# SODIUM HYPOCHLORITE 3.5 %

## Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9

Symptoms/effects after skin contact	: Burns. Irritation.
Symptoms/effects after eye contact	: Serious damage to eyes. Eye irritation.
Symptoms/effects after ingestion	: Burns.

### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Adapt extinguishing media to the environment. Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: No unsuitable extinguishing media known.

### 5.2. Specific hazards arising from the chemical

Fire hazard	: DIRECT FIRE HAZARD. Non combustible. INDIRECT FIRE HAZARD. Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard	: INDIRECT EXPLOSION HAZARD. Reactions with explosion hazards: see "Reactivity Hazard".
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

### 5.3. Special protective actions for fire-fighters

Precautionary measures fire	: Exposure to fire/heat: consider evacuation.
Firefighting instructions	: Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Dilute toxic gases with water spray. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Protective clothing. Protective goggles. Wear suitable respiratory equipment in case of insufficient ventilation.
Emergency procedures	: Ventilate spillage area. Keep upwind. Mark the danger area. Seal off low-lying areas. Close doors and windows of adjacent premises. No naked flames. Large spills/in confined spaces: consider evacuation. In case of reactivity hazard: consider evacuation. Wash contaminated clothes. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

#### 6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
----------------------	---

### 6.2. Environmental precautions

Avoid release to the environment. Prevent soil and water pollution. Prevent spreading in sewers.

### 6.3. Methods and materials for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Take up liquid spill into absorbent material. Liquid spill: neutralize. Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. Spill must not return in its original container. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling. Clean contaminated surfaces with an excess of water.

# SODIUM HYPOCHLORITE 3.5 %

## Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9

Other information : Dispose of materials or solid residues at an authorized site.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Keep the substance free from contamination. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Keep away from naked flames/heat. Observe strict hygiene. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

Storage area : Store in a cool area. Keep out of direct sunlight. Store in a dry area. Store in a dark area. Keep locked up. Provide for a tub to collect spills. Keep only in the original container. Meet the legal requirements.

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.

Information on mixed storage : KEEP SUBSTANCE AWAY FROM: reducing agents. (strong) acids. (strong) bases. metals. organic materials.

Special rules on packaging : SPECIAL REQUIREMENTS: closing. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials : SUITABLE MATERIAL: synthetic material. polyethylene. glass. stoneware/porcelain. MATERIAL TO AVOID: aluminium. iron. copper. zinc. nickel.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

#### 8.3. Individual protection measures, such as personal protective equipment

Materials for protective clothing : Full conti-suit/overall (Jacket and pants) - Acid resistant and flame retardant with reflective stripes - SANS 434, EN 471, EN 469, EN 533

Hand protection : Protective gloves

Eye protection : Face-shield - Pyramex Capstone Shield or Uvex. Spoggles (not safety glasses) - EN166, UVEX, Pyramex Capstone . Safety glasses

Skin and body protection : Wear suitable protective clothing

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s)



#### 8.4. Exposure limit values for the other components

No additional information available

# SODIUM HYPOCHLORITE 3.5 %

## Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9

### SECTION 9: Physical and chemical properties

#### 9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Molecular mass	: 74.44 g/mol
Colour	: Light yellow. Light yellow
Odour	: mild. mild
Odour threshold	: No data available
pH	: 11
pH solution	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: 100 °C
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability	: Non flammable.
Vapour pressure	: 2500 Pa
Vapour pressure at 50°C	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: 1.145
Relative density of saturated gas/air mixture	: No data available
Density	: No data available
Relative gas density	: No data available
Solubility	: Soluble in water. Water: Complete
Partition coefficient n-octanol/water (Log Pow)	: -3.42
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Physical state	: Liquid
Appearance	: Liquid.

#### 9.2. Data relevant with regard to physical hazard classes (supplemental)

Minimum ignition energy	: Not applicable
VOC content	: 0 %
Other properties	: Gas/vapour heavier than air at 20°C. Clear. Substance has basic reaction.

### SECTION 10: Stability and Reactivity

#### 10.1. Reactivity

Product is stable.

#### 10.2. Chemical Stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Contact with acids liberates toxic gas.

# SODIUM HYPOCHLORITE 3.5 %

## Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

Acids.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified.  
Acute toxicity (dermal) : Not classified.  
Acute toxicity (inhalation) : Not classified.

SODIUM HYPOCHLORITE 3.5 % (7681-52-9)	
LD50 oral rat	> 2000 mg/kg (Rat)
LD50 oral	8910 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg (Rat)
LD50 dermal	> 20000 mg/kg bodyweight
LC50 Inhalation - Rat (Dust/Mist)	> 10500 mg/m <sup>3</sup>

Skin corrosion/irritation : Causes severe skin burns.  
pH: 11  
Serious eye damage/irritation : Causes serious eye damage.  
pH: 11  
Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
IARC group : 3 - Not classifiable  
Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified  
Aspiration hazard : Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : Classification concerning the environment: not applicable. Very toxic to aquatic life with long lasting effects. Harmful to aquatic life with long lasting effects.  
Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).  
Ecology - water : Water pollutant (surface water). Ground water pollutant. Maximum concentration in drinking water: 200 mg/l (sodium) (Directive 98/83/EC). Toxic to fishes. pH shift.  
Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.  
Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

### 12.2. Persistence and degradability

SODIUM HYPOCHLORITE 3.5 % (7681-52-9)	
Persistence and degradability	No additional information available

# SODIUM HYPOCHLORITE 3.5 %

## Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9

SODIUM HYPOCHLORITE 3.5 % (7681-52-9)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the components available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

### 12.3. Bioaccumulative potential

SODIUM HYPOCHLORITE 3.5 % (7681-52-9)	
Bioaccumulative potential	No additional information available

SODIUM HYPOCHLORITE 3.5 % (7681-52-9)	
Bioaccumulative potential	Not bioaccumulative.

WATER (7732-18-5)	
Partition coefficient n-octanol/water (Log Kow)	-1.38

### 12.4. Mobility in soil

SODIUM HYPOCHLORITE 3.5 % (7681-52-9)	
Mobility in soil	No additional information available

SODIUM HYPOCHLORITE 3.5 % (7681-52-9)	
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.

### 12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No additional information available

## SECTION 13: Disposal Considerations

### 13.1. Disposal methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Remove for physico-chemical/biological treatment. May be discharged to company wastewater treatment plant.
Additional information	: LWCA (the Netherlands): KGA category 02. Can be considered as non hazardous waste according to Directive 2008/98/EC.

## SECTION 14: Transport information




In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
<b>14.1. UN number</b>		
1791	1791	1791
<b>14.2. UN Proper Shipping Name</b>		
HYPOCHLORITE SOLUTION	HYPOCHLORITE SOLUTION	Hypochlorite solution

# SODIUM HYPOCHLORITE 3.5 %

## Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9

SANS	IMDG	IATA
<b>14.3. Transport hazard class(es)</b>		
8	8	8
		
<b>14.4. Packing group, if applicable</b>		
III	III	III
<b>14.5. Environmental hazards</b>		
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes
No supplementary information available		

### 14.6. Special precautions for user

#### SANS

Transport regulations (UN)	: Subject
Special provisions (SANS)	: 223
Limited quantities (SANS)	: 5 L
Limited quantities (SANS)	: 5 L
Packagings, large packagings and IBCs Packing instructions (SANS)	: P001, IBC03, LP01
Portable tank and bulk containers instructions (SANS)	: T4
Portable tank and bulk container special provisions (SANS)	: TP2, TP24

#### IMDG

Transport regulations (IMDG)	: Subject to the provisions
Special provisions (IMDG)	: 223, 274, 900
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP2, TP24
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	: S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES
Stowage category (IMDG)	: B
Segregation (IMDG)	: SGG8, SG20
Properties and observations (IMDG)	: Liquid with chlorine odour. In contact with acids, evolves very irritating and corrosive gases. Mildly corrosive to most metals. Causes burns to skin, eyes and mucous membranes.

#### IATA

Transport regulations (IATA)	: Subject to the provisions
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y841
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 852
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 856
CAO max net quantity (IATA)	: 60L
Special provisions (IATA)	: A3, A803
ERG code (IATA)	: 8L

### 14.7. Transport in bulk according to IMO instructions

Not applicable

# SODIUM HYPOCHLORITE 3.5 %

## Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

### SECTION 16: Other information

Issue date : 02/10/2024

Revision date : 02/10/2027

Abbreviations and acronyms : ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE - Acute Toxicity Estimate  
BCF - Bioconcentration factor  
BLV - Biological limit value  
BOD - Biochemical oxygen demand (BOD)  
COD - Chemical oxygen demand (COD)  
DMEL - Derived Minimal Effect level  
DNEL - Derived-No Effect Level  
EC-No. - European Community number  
EC50 - Median effective concentration  
EN - European Standard  
IARC - International Agency for Research on Cancer  
IATA - International Air Transport Association  
IMDG - International Maritime Dangerous Goods  
LC50 - Median lethal concentration  
LD50 - Median lethal dose  
LOAEL - Lowest Observed Adverse Effect Level  
NOAEC - No-Observed Adverse Effect Concentration  
NOAEL - No-Observed Adverse Effect Level  
NOEC - No-Observed Effect Concentration  
OECD - Organisation for Economic Co-operation and Development  
OEL - Occupational Exposure Limit  
PBT - Persistent Bioaccumulative Toxic  
PNEC - Predicted No-Effect Concentration  
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail  
SDS - Safety Data Sheet  
STP - Sewage treatment plant  
ThOD - Theoretical oxygen demand (ThOD)  
TLM - Median Tolerance Limit  
VOC - Volatile Organic Compounds  
CAS-No. - Chemical Abstract Service number  
N.O.S. - Not Otherwise Specified  
vPvB - Very Persistent and Very Bioaccumulative  
ED - Endocrine disrupting properties

#### Full text of H-statements:

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

Safety Data Sheet (SDS), South Africa (HCA)

# SODIUM HYPOCHLORITE 3.5 %

## Safety Data Sheet

According to Regulations for Hazardous Chemical Agents, 2021 and United Nations GHS revision 9

---

“DISCLAIMER: The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. IMPROCHEM MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. User is responsible for determining whether ImproChem’s product is fit for a particular purpose and suitable for user’s method of use or application. Given the variety of factors that can affect the use and application of the ImproChem product, some of which are uniquely within the user’s knowledge and control, it is essential that the user evaluate ImproChem product to determine whether it is fit for a particular purpose and suitable for user’s method of use or application. ImproChem provides information in electronic form as a service to its customers. Due to the remote possibility that electronic transfer may have resulted in errors, omissions or alterations in this information, ImproChem makes no representations as to its completeness or accuracy. In addition, information obtained from a database may not be as current as the information in the SDS available directly from ImproChem.”