SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code:	**210100000012**
Product name	**IPOCLORITO DI SODIO**
Chemical name and synonym	**IPOCLORITO DI SODIO SOLUZIONE 15% CI ATTIVO**
INDEX number	**017-011-00-1**
EC number	**231-668-3**
CAS number	**7681-52-9**
Registration Number	**01-2119488154-34**
UFI :	**64Q1-1GPP-UHMFM2QC**

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

Identified Uses	Industrial	Professional	Consumer
Whitener and bleach	-	✔	-

Uses Advised Against

Do not use for uses other than those indicated

1.3. Details of the supplier of the safety data sheet

Name	**NEW FADOR S.r.l.**
Full address	**via Mario Calderara, 31**
District and Country	**25018 Montichiari (BS)** **Italia**
	Tel. +39 030961 243
	www.newfador.it
e-mail address of the competent person responsible for the Safety Data Sheet	**info@newfador.it**

1.4. Emergency telephone number

For urgent inquiries refer to	**NEW FADOR S.r.l.**
	+39 030961 243
	(08.30 - 17.30)

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.
Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Substance or mixture corrosive to metals, category 1	H290	May be corrosive to metals.
Skin corrosion, category 1B	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.
Hazardous to the aquatic environment, acute toxicity, category 1	H400	Very toxic to aquatic life.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.
	Classification note according to Annex VI to the CLP Regulation: B	

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal word: Danger

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.
EUH031	Contact with acids liberates toxic gas.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).

Precautionary statements:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
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
P501	Dispose of contents / container in accordance with current regulations.

Contains:	IPOCLORITO DI SODIO SOLUZIONE 15% Cl ATTIVO
INDEX	017-011-00-1

The product is classified both in acute and long-term aquatic hazard categories: it is possible to use only hazard statement H410 on the label.

Ingredients (Regulation 648/2004)

15% or over but less than 30%	Chlorine-based bleaching agents

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.
The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	Conc. %	Classification (EC) 1272/2008 (CLP)
sodium hypochlorite, solution … % Cl active		

(100% - active chlorine)

INDEX 017-011-00-1	15	Met. Corr. 1 H290, Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1, EUH031, Classification note according to Annex VI to the CLP Regulation: B
EC 231-668-3		EUH031: ≥ 5%
CAS 7681-52-9		
REACH Reg. 01-2119488154-34		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

In case of doubt or in the presence of symptoms contact a doctor and show him this document.
In case of more serious symptoms, call 118 to obtain immediate health rescue.
Eyes: Remove, if present, the contact lenses if the situation allows you to perform the operation easily. Wash immediately and abundantly with water for at least 15 minutes, opening the eyelids well. Consult a doctor immediately.
Leather: remove contaminated clothing. Wash immediately and abundantly with running water (and soap if possible). Consult a doctor. Avoid further contacts with contaminated clothing.
Ingestion: do not induce vomiting if not expressly authorized by the doctor. Do not administer anything by oral way if the subject is unconscious. Consult a doctor immediately.
Inhalation: bring the subject to the open air, far from the place of the accident. Consult a doctor immediately.

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE
In case of contact with the skin:
Immediately remove contaminated clothing and eliminate them safely.
Wash immediately with water.
Consult a doctor immediately.
In case of persistent skin irritation, consult a doctor.
In case of contact with the eyes:
In case of contact with the eyes, rinse them with water for an adequate time interval and keeping the eyelids open, then immediately consult an ophthalmologist.
Protect the angry eye.
Consult a doctor immediately.
In case of ingestion:
Consult a doctor immediately.
In case of inhalation: bring the injured person to the open air and keep it in the heat and rest.

Rescuer protection

It is good practice for the rescuer who provides help to a person who has been exposed to a chemical substance or mixture to wear personal protective equipment. The nature of these protections depends on the hazard of the substance or mixture, the mode of exposure and the extent of contamination. In the absence of other more specific indications, it is recommended to use disposable gloves in case of possible contact with biological liquids. For the type of PPE suitable for the characteristics of the substance or mixture, refer to section 8.

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

In case of inhalation: Irritation of the respiratory tract, cough. Inhalation of larger quantities may cause laryngospasm with shortness of breath.
In case of skin contact: reversible skin lesions (redness, swelling, burning)
In case of contact with eyes: serious damage to eyes
In case of ingestion: Ingestion may cause irritation of the mouth, throat, digestive system, diarrhea and vomiting. Vomiting can enter the lungs causing damage (aspiration)

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE

Damage to the eyes, skin irritation, erythema

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

In case of symptoms, whether acute or delayed, consult a doctor.
In the event of an accident or feeling unwell, consult a doctor immediately (show the instructions for use or safety data sheet if possible).
Treatment: Symptomatic treatment.

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye washing.

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE
In the event of an accident or malaise, consult a doctor immediately (if possible to show the instructions for use or the safety card).

SECTION 5. Firefighting measures

5.1. Extinguishing media

Suitable extinction means
The extinction vehicles are the traditional ones: carbon dioxide, foam, dust and nebulized water.
Non -suitable extinction means
None in particular.

5.2. Special hazards arising from the substance or mixture

Dangers due to exposure in case of fire
Avoid breathing combustion products.
Combustion can produce gas and vapors potentially harmful to health such as carbon dioxide, carbon monoxide, satisfying, nox and irritating fumes.

5.3. Advice for firefighters

INFORMAZIONI GENERALI
Raffreddare con getti d'acqua i contenitori per evitare la decomposizione del prodotto e lo sviluppo di sostanze potenzialmente pericolose per la salute. Indossare sempre l'equipaggiamento completo di protezione antincendio. Raccogliere le acque di spegnimento che non devono essere scaricate nelle fognature. Smaltire l'acqua contaminata usata per l'estinzione ed il residuo dell'incendio secondo le norme vigenti.
EQUIPAGGIAMENTO
Indumenti normali per la lotta al fuoco, come un autorespiratore ad aria compressa a circuito aperto (EN 137), completo antifiamma (EN469), guanti antifiamma (EN 659) e stivali per Vigili del Fuoco (HO A29 oppure A30).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For those who do not intervene directly
Stop the leak if there is no danger.
Wear appropriate protective equipment (including personal protective equipment referred to in section 8 of the safety data sheet) to prevent contamination of the skin, eyes and personal clothing. These indications are valid both for those employed in the processes and for emergency interventions.
Remove unnecessary personnel.
6.1.2. For those who intervene directly
Wear appropriate protective equipment (including personal protective equipment referred to in section 8 of the safety data sheet) to prevent contamination of the skin, eyes and personal clothing. These indications are valid both for those employed in the processes and for emergency interventions.

6.2. Environmental precautions

Prevent penetration into the soil/subsoil. Prevent runoff into surface water or sewer system.
Retain contaminated wash water and discard it.

6.3. Methods and material for containment and cleaning up

Suck up the spilled product into a suitable container. Evaluate the compatibility of the container to be used with the product, checking section 10. Absorb the remainder with inert absorbent material.
Provide sufficient ventilation of the area affected by the leak. Disposal of contaminated material must be carried out in accordance with the provisions of point 13.

6.4. Reference to other sections

Any information regarding personal protection and disposal is reported in sections 8 and 13

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Manipulate the product after consulting all the other sections of this safety card. Avoid the dispersion of the product in the environment. Do not eat, nor drink, nor smoking during use.

7.2. Conditions for safe storage, including any incompatibilities

Keep the product in clearly labeled containers. Store the containers away from any incompatible materials, checking section 10.

7.3. Specific end use(s)

Refer to the final uses identified in the subsection 1.2 of this form.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

sodium hypochlorite, solution … % Cl active

Predicted no-effect concentration - PNEC		
Normal value in fresh water	0,00021	mg/l
Normal value in marine water	0,000042	mg/l
Normal value for water, intermittent release	0,00026	mg/l
Normal value of STP microorganisms	4,69	mg/l
Normal value for the food chain (secondary poisoning)	11,1	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,26 mg/kg bw/d				
Inhalation	3,1 mg/m3	3,1 mg/m3	1,55 mg/m3	1,55 mg/m3	3,1 mg/m3	3,1 mg/m3	1,55 mg/m3	1,55 mg/m3

Skin	5000 ppm	5000 ppm

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

8.2. Exposure controls

Generic hygiene practice at work involves certain measures (for example, shower and change of clothes at the end of the work shift) in order to avoid Any type of third party contamination and appropriate cleaning practices (i.e. regular cleaning with adequate cleaning devices), do not eat and smoke in the workplace.
In general, inhalation and ingestion must be avoided. Unless different indications, shoes and work clothing must be worn certificates. Contaminated work clothing must not be brought out of the workplace.
Ensure good general ventilation in the place of and effective local aspiration or other technical equipment in order to maintain levels in the air below the exposure limit values.
In the absence of adequate ventilation, automatic indicators and warnings to report the achievement of the concentrations or dangerous conditions.
If this is not possible, frequent checks and measurements must be performed.
For the choice of personal protective equipment, ask for advice from their DPI suppliers.
Individual protection devices must report the EC marking certifying their compliance with current regulations.

Provide an emergency shower with face and eye wash station.

Hands protection
Protect your hands with category III work gloves (Report EN 374).
Recommended materials: nitrilic rubber, pvc, butyl rubber, neoprene.
Protection class: 6 (permeation time greater than 480 minutes according to the EN 374 standard).
Speaking of the recommended material: ≥ 0.4 mm
During the identification phase of the relevant material and the relative thickness to be used, it is highly recommended to compare directly with the DPI producer to evaluate the actual protection on the basis of use and the duration of use.
For the definitive choice of the material of work gloves, compatibility, degradation, breakage and permeation must be considered.
In the case of preparing, the resistance of work gloves to chemical agents must be verified before use as they are not predictable. Gloves
They have a wear time that depends on the duration and the use mode.

HAND PROTECTION
Protect hands with category III work gloves.
The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, permeability time.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION
Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION
Wear airtight protective goggles (see standard EN ISO 16321).

RESPIRATORY PROTECTION
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. Use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	Temperature: 20 °C
Colour	yellow	Temperature: 20 °C
Odour	characteristic	
Melting point / freezing point	-28,9 °C	Method: literature data Substance: sodium hypochlorite, solution … % Cl active
Initial boiling point	100 °C	Method: literature data Substance: WATER Initial boiling point: 100 °C
Flammability	not available	Reason for missing data: The substance/mixture is not flammable
Lower explosive limit	not available	Reason for missing data: This property is not relevant to the safety and classification of this product.
Upper explosive limit	not available	Reason for missing data: This property is not relevant to the safety and classification of this product.
Flash point	not available	Reason for missing data: The substance/mixture is not flammable
Auto-ignition temperature	not available	Reason for missing data: This property is not relevant to the safety and classification of this product.
Decomposition temperature	not available	Reason for missing data: It only applies to authoritative substances and mixtures, organic peroxides and other substances and mixtures that they can decompose
pH	> 11,5	Method: internal method Temperature: 20 °C
Kinematic viscosity	not available	Reason for missing data: This property is not relevant to the safety and classification of this product.
Solubility	Complete in water	Method: internal Temperature: 20 °C
Partition coefficient: n-octanol/water	not available	Reason for missing data: does not apply to inorganic and ionic liquids and, as a rule, it does not apply to blends
Vapour pressure	not available	Method: datum of literature Substance: sodium hypochlorite, solution … % Cl active Vapour pressure: 0 Pa Temperature: 20 °C
Density and/or relative density	1,25 g/cm3	Method: internal Temperature: 20 °C
Relative vapour density	0,0006	Method: Literature data Remark: kg/dm3 Substance: WATER Temperature: 0 °C

Particle characteristics

Median equivalent diameter

Remark: It only applies to solids

Size distribution

Remark: It only applies to solids

Dustiness
Remark: It only applies to solids

Specific surface area
Remark: It only applies to solids

Shape
Remark: It only applies to solids

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Corrosive to metals

Corrosive to metals	Remark: The substance/mixture can be corrosive for metals: iron, stainless steel, copper and copper alloys, aluminum, unprotected metals

9.2.2. Other safety characteristics

Miscibility	not available	Remark: See section 9.1 Solubility
Corrosiveness	not available	Remark: Classification pursuant to Reg. (EC) 1272/2008 as a corrosive based on extreme pH.
Explosive properties	not available	Reason for missing data: Absent chemical groups associated with explosive properties in accordance with the provisions of Annex I, Part 2, chap. 2.1.4.3 of Reg. (EC) 1272/2008 – CLP
Oxidising properties	oxidising	Substance: sodium hypochlorite, solution … % Cl active Temperature: 20 °C

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular reaction dangers with other substances in normal conditions of use.

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE
In contact with very toxic gase free acids. (Chlorine). Chlorine is an oxidizing agent. Corrosive for metals.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE
Stable in normal conditions. The stability of the solution decreases with the action of heat and light and with contact with acids and some metals.

10.3. Possibility of hazardous reactions

In normal use and storage conditions, no dangerous reactions are predictable.

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE
In contact with very toxic gase free acids. (Chlorine). Chlorine is an oxidizing agent.
It reacts with ammonia in solution and amines forming compounds that can be explosive.

It can react violently in contact with methanol, reaction accelerated by light and heat, and also in contact with many metals, in particular: copper, nickel, iron.

10.4. Conditions to avoid

None in particular. However, to follow the usual caution towards chemicals.

SODIUM HYPOCHLORITE, SOLUTION ... % CL ACTIVE

Keep shelter from heat and direct sunlight.

10.5. Incompatible materials

Strong acids, oxidizing agents.
Don't mix with other chemicals.

SODIUM HYPOCHLORITE, SOLUTION ... % CL ACTIVE
Incompatible products: acids, ammonia, combustible materials
Products to avoid: iron, stainless steel, copper and copper alloys, aluminum, unprotected metals
Recommended materials: vulcanized steel or coated with rubber, polyethylene, reinforced polyester

10.6. Hazardous decomposition products

For thermal decomposition or in the event of a fire you can free gases and vapors potentially harmful to health as carbon dioxide, carbon monoxide, satisfying, nox and irritating fumes.

SODIUM HYPOCHLORITE, SOLUTION ... % CL ACTIVE
In contact with very toxic gase free acids. (Chlorine). Chlorine is an oxidizing agent.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and other information
The mixture as such has not been subjected to specific tests, therefore no experimental evaluations are available; please refer to the information in this subsection.

SODIUM HYPOCHLORITE, SOLUTION ... % CL ACTIVE
Animal data suggest that, after oral exposure, HOCl is absorbed and excreted primarily via urine as chloride (36.43% + 5.67% of the administered dose after 96 hours); a smaller amount of HO36Cl-derived radioactivity, not necessarily associated with absorption, was detectable in feces 96 hours after exposure (14.8% + 3.7%). Once in the body, it reacts directly with organic molecules to form some organochlorine compounds, characterized by their own toxicity. No data are available for other routes of exposure, including dermal and inhalation. Human data are very scarce and indirect. Absorption is suggested by some transient and non-serious systemic symptoms following ingestion, although the possibility that they are secondary to a local effect cannot be ruled out with certainty.
ECHA CHEM 10/25

Information on likely routes of exposure
The likely routes of exposure depend on the use of the mixture.
Usually inhalation and cutaneous exposure are the most likely routes, rarely oral.
For the effects, please refer to the other subsections in this section and to section 4 of this sheet.

Delayed and immediate effects as well as chronic effects from short and long-term exposure
The mixture as such has not been subjected to specific tests, therefore no experimental evaluations are available; please refer to the other subsections in this section and to section 4 of this sheet.

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE
Key study (oral): No mortality occurred during a 90-day study in rats. Body weight gain was statistically significantly reduced in males at the 100 and 200 mg/kg body weight/day dosage groups and in females at the 228.8 mg/kg body weight/day dosage group (Hasegawa et al., 1986); no obvious macroscopic or histological changes were observed in any group. A NOAEL of 50 mg/kg body weight/day was identified.
ECHA CHEM 10/25

Interactive effects
Under normal conditions of use no interactive effects are currently expected.

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

sodium hypochlorite, solution … % Cl active

LD50 (Dermal):	> 20000 mg/kg rabbit
LD50 (Oral):	1100 mg/kg rat
LC50 (Inhalation vapours):	> 10,5 mg/l/1h rat

SKIN CORROSION / IRRITATION
Corrosive for the skin
Classification according to the experimental pH value

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE
Key Study: A study was conducted to evaluate the skin irritant potential of sodium hypochlorite (Nixon, 1975). The results indicate that sodium hypochlorite, 5.25%, was mildly irritating in rabbits and guinea pigs under the conditions described in the study. The mean intact skin score (sum of mean erythema and edema scores at 4, 24, and 48 hours) was 1.0. All symptoms were reversible. The average score for intact human skin was 3.9 at the same concentration. However, according to the CLP Regulation, sodium hypochlorite must be classified with category 1B for skin corrosion.
ECHA CHEM 10/25

SERIOUS EYE DAMAGE / IRRITATION
Causes serious eye damage

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE
Waiver of the study: According to column 2 of Annex VII of REACH, it is not necessary to conduct an eye irritation study (required in section 8.2) as the available information indicates that the criteria for classification as skin corrosive are met. Therefore, sodium hypochlorite must be classified as eye damage category 1 according to the CLP Regulation. No further tests are necessary. Studies conducted in the past are referred to as supporting studies.
ECHA CHEM 10/25

RESPIRATORY OR SKIN SENSITISATION
Does not meet the classification criteria for this hazard class

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE
It does not meet the classification criteria for this hazard class.

GERM CELL MUTAGENICITY
Does not meet the classification criteria for this hazard class

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE
It does not meet the classification criteria for this hazard class.

CARCINOGENICITY
Does not meet the classification criteria for this hazard class

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE

It does not meet the classification criteria for this hazard class.

REPRODUCTIVE TOXICITY
Does not meet the classification criteria for this hazard class

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE
It does not meet the classification criteria for this hazard class.

STOT - SINGLE EXPOSURE
Does not meet the classification criteria for this hazard class

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE
It does not meet the classification criteria for this hazard class.

STOT - REPEATED EXPOSURE
Does not meet the classification criteria for this hazard class

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE
It does not meet the classification criteria for this hazard class.

ASPIRATION HAZARD
Does not meet the classification criteria for this hazard class

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE
It does not meet the classification criteria for this hazard class.

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and highly toxic for aquatic organisms.
This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it has negative effects on the aquatic environment.

12.1. Toxicity

sodium hypochlorite, solution … % Cl active

LC50 - for Fish	0,032 mg/l/96h
EC50 - for Crustacea	0,026 mg/l/48h
EC50 - for Algae / Aquatic Plants	0,037 mg/l/72h
Chronic NOEC for Fish	0,04 mg/l
Chronic NOEC for Crustacea	0,007 mg/l
Chronic NOEC for Algae / Aquatic Plants	0,0021 mg/l

12.2. Persistence and degradability

sodium hypochlorite, solution … % Cl active

Solubility in water	1000000 mg/l

Degradability: information not available

12.3. Bioaccumulative potential

sodium hypochlorite, solution … % Cl active

Partition coefficient: n-octanol/water	-3,42

12.4. Mobility in soil

sodium hypochlorite, solution … % Cl active

Partition coefficient: soil/water	-2,97

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Before disposal, it is always recommended to classify waste according to applicable national legislation.
Indicatively, the codes of the European waste list can be:
20 01 29* - detergents containing dangerous substances
15 01 10* - packaging containing residues of dangerous substances or contaminated by such substances

SODIUM HYPOCHLORITE, SOLUTION … % CL ACTIVE
This material and its container must be disposed of as hazardous waste. Dispose of the product/container in accordance with local/regional/national/international regulation.
Do not throw the residues in the sewers. Do not disperse in the environment.
Handle the packaging contaminated in the same way as the substance itself.
Fully empty packaging can be recycled.

The release of waste in the sewer is strongly not recommended. The disposal of this product, solutions and any by -product must be carried out by always certifying the indications of the law on the protection of the environment and on the disposal of waste and the requirements of each relevant local authority.
Do not get rid of the product and the container except with the necessary precautions. Empty containers can contain product residues. Avoid the dispersion and outflow of material possibly spilled and the contact with soil, waterways, exhausts and sewers.

SECTION 14. Transport information

14.1. UN number or ID number

ADR / RID, IMDG, IATA: UN 1791

14.2. UN proper shipping name

ADR / RID: HYPOCHLORITE SOLUTION
IMDG: HYPOCHLORITE SOLUTION (sodium hypochlorite, solution … % Cl active)
IATA: HYPOCHLORITE SOLUTION

14.3. Transport hazard class(es)

ADR / RID: Class: 8 Label: 8
IMDG: Class: 8 Label: 8
IATA: Class: 8 Label: 8

14.4. Packing group

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous
IMDG: Marine Pollutant
IATA: NO

For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: 80	Limited Quantities: 1 L	Tunnel restriction code: (E)
	Special provision: 521		
IMDG:	EMS: F-A, S-B	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 30 L	Packaging instructions: 855
	Passengers:	Maximum quantity: 1 L	Packaging instructions: 851
	Special provision:	A3, A803	

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

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

Seveso Category - Directive 2012/18/EU: E1

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product

Point	3	

Contained substance

Point	75	sodium hypochlorite, solution … % Cl active REACH Reg.: 01-2119488154-34

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
not applicable

Substances in Candidate List (Art. 59 REACH)
On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

Regulation (EC) No. 648/2004
Ingredients according to Regulation (EC) No. 648/2004

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 2: Hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Met. Corr. 1	Substance or mixture corrosive to metals, category 1
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Skin Corr. 1	Skin corrosion, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent, bioaccumulative and toxic
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value

- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
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16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
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21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
23. Delegated Regulation (UE) 2023/707
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28. Regulation (EU) 2024/2865
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- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

- ECHA CHEM website (ECHA Chemicals Database)

Note for the user:
The information contained in this sheet is based on the knowledge available to us at the date of the latest version. The user must ensure the suitability and completeness of the information in relation to the specific use of the product.
This document should not be interpreted as a guarantee of any specific property of the product.
Since the use of the product does not fall under our direct control, it is the user's obligation to observe the laws and regulations in force regarding hygiene and safety under his own responsibility. We do not assume responsibility for improper use.
Provide adequate training to personnel responsible for using chemical products.
CLASSIFICATION CALCULATION METHODS
Chemical-physical hazards: The classification of the product was derived from the criteria established by the CLP Regulation Annex I Part 2. The methods of evaluation of the chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on the calculation methods in Annex I of CLP Part 3, unless otherwise indicated in section 11.
Environmental hazards: The classification of the product is based on the calculation methods in Annex I of CLP Part 4, unless otherwise indicated in section 12.

Changes to previous review:
The following sections were modified:
02 / 03 / 04 / 06 / 07 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15 / 16.