

Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

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

1.1. Product identifier

Code:	MEK-620I
Product name	CLEANAC-3
Chemical name and synonym	Sodium hypochlorite, 1,5% Cl active solution
INDEX number	017-011-00-1
EC number	231-668-3
CAS number	7681-52-9
Registration Number	01-2119488154-34-xxxx

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

Description/Use Reagent for hematology analyzers.

Intended use

USE IN CLEANING

PRODUCTS

(PROFESSIONAL)

Exposure scenario: Sodium hypochlorite, 1,5% Cl active solution, GES4_P

Uses advised against:

Uses other than those indicated above.

1.3. Details of the supplier of the safety data sheet

Name	NIHON KOHDEN FIRENZE S.r.l.
Full address	Via Torta, 72/74
District and Country	Osmannoro Sesto Fiorentino (FI) ITALY
	Tel. +39 055/30.45.1
	Fax. +39 055/30.85.48

e-mail address of the competent person

responsible for the Safety Data Sheet

e-mail: info.MSDS@nkf.it

1.4. Emergency telephone number

For urgent inquiries refer to

Malta 112
United Kingdom NHS 111
Ireland Members of Public: +353 (01) 809 2166. (8.00 a.m. to 10.00 p.m. 7 days a week)
NIHON KOHDEN FIRENZE S.r.l. Tel. +39 055 / 30.45.1 (technical support - office hours)

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.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

Classification note according to

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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 words: **Warning**

Hazard statements:

H290 May be corrosive to metals.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P280 Wear protective gloves / eye protection / face protection.
P337+P313 If eye irritation persists: Get medical advice.
P264 Wash hand thoroughly after handling.
P273 Avoid release to the environment.
P390 Absorb spillage to prevent material damage.

Contains: Sodium hypochlorite, 1,5% Cl active solution

2.3. Other hazards

Liquid brought to dryness: May cause ignition of combustible materials. Thermal dehydration of the solid can lead to violent exothermic decomposition.
On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.
The product does not contain substances with endocrine disrupting properties in concentration \geq 0.1%.

SECTION 3. Composition/information on ingredients

3.1. Substances

Contains:

Identification	x = Conc% active Cl:	Classification (EC) 1272/2008 (CLP)
SODIUM HYPOCHLORITE, SOLUTION*		
CAS 7681-52-9	$1 \leq x < 2,5$	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 Specific concentration limits (Annex VI - CLP) EUH031: \geq 5%
EC 231-668-3		
INDEX 017-011-00-1		

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REACH Reg. 01-2119488154-34-xxxx

*SODIUM HYPOCHLORITE, SOLUTION

Classification of the substance for health and environmental hazards according to the applicable limits deriving from the registration dossier (Active chlorine concentration between 1% and 2.5%), as described in the classification note B from Annex VI of CLP:

Skin Irrit. 2 H315, Eye Irrit. 2 H319, Aquatic Chronic 3 H412

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

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice.

INGESTION: Have the subject drink as much water as possible. Get medical advice. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

PROTECTIVE MEASURES FOR THE FIRST RESCUE WORKERS: for PPE (personal protection equipment) required for first aid refer to section 8.2 of this safety data sheet.

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

Acute Effects:

Skin: severe irritation.

Eyes: irritation, corneal damage.

Respiratory tract: severe irritation to the respiratory tract.

Ingestion: irritation of the digestive system with vomiting sometimes blood.

Chronic effects.

Skin: dermatosis.

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

In case of accident or if you feel unwell, consult a doctor immediately (if possible show the instructions for use or the safety data sheet).

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Avoid breathing combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the

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development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Do not touch or walk through spilled material.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Wear appropriate respirator when ventilation is inadequate.

Do not breathe mist/vapour. Avoid leakage of the product into the environment.

Non-emergency personnel must follow the appropriate internal procedures in case of accidental release.

For emergency responders

Block the leakage if there is no hazard.

Evacuate unprotected and untrained personnel from hazard area. Wear suitable protective equipment. (see Section 8 of this Safety data sheet)

Follow the appropriate internal procedures for authorized personnel.

Isolate hazard area and deny entry. Ventilate closed spaces before entering.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10.

Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage**7.1. Precautions for safe handling**

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details. The product is very sensitive to light, keep away from direct sunlight and other heat sources

Storage temperature: 1 to 30 °C.

7.3. Specific end use(s)

No use other than as indicated in section 1.2 of this safety data sheet

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SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

IRL	Éire	2020 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2015) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001-2019)
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2021

SODIUM HYPOCHLORITE, SOLUTION

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
OELV	IRL			1,5	0,5	Chlorine
WEL	GBR			1,5	0,5	Chlorine
OEL	EU			1,5	0,5	Chlorine
TLV-ACGIH		0,1		0,4		Chlorine

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,00021	mg/l
Normal value in marine water	0,000042	mg/l
Reference value for water, intermittent release	0,26	mg/l
Normal value of STP microorganisms	4,69	mg/l
Reference value for the food chain (secondary poisoning)	11,1	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	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

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

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.

Recommended monitoring procedures

This product contains substances with exposure limits, for which personal, workplace atmosphere and biological monitoring may be required to determine the effectiveness of ventilation or other control measures and / or the need to use protective equipment respiratory.

The European Standards of reference are:

- UNI EN 689 "Guide to the assessment of exposure by inhalation to chemical compounds for the purpose of comparison with the limit values and measurement strategy";
- UNI EN 482 standard "general requirements for the performance of chemical agents measurement procedures".

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

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When choosing personal protective equipment, ask your chemical substance supplier for advice.
Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following materials are suitable for protective gloves (breakthrough time \geq 8 hours):

Natural rubber / Natural latex - NR (0.5 mm) (use non-powdered and allergen-free products)

Polychloroprene - CR (0.5 mm)

Nitrile rubber / Nitrile latex - NBR (0.35mm)

Butyl rubber - butyl (0.5 mm)

Fluorocarbon rubber - FKM (0.4 mm)

Polyvinyl chloride - PVC (0.5 mm)

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

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 166).

RESPIRATORY PROTECTION

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). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

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. The protection provided by masks is in any case limited.

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.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

For more information, refer to the attached exhibition scenarios.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value
Appearance	liquid
Colour	colourless
Odour	Characteristic of chlorine
Melting point / freezing point	-20°C
Initial boiling point	96 – 120°C
Flammability	Non-flammable mixture
Lower explosive limit	Not explosive due to the absence in the components of reactive groups associated with the explosive properties (Annex I, Part 2.1.4.2 and 2, 1.4.3 Reg. CLP)
Upper explosive limit	Not explosive due to the absence in the components of reactive groups associated with the explosive properties (Annex I, Part 2.1.4.2 and 2, 1.4.3 Reg. CLP)
Flash point	> 111 °C
Auto-ignition temperature	not available

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Decomposition temperature	At temperatures > 35 °C it begins to release chlorine
pH	10-13
Kinematic viscosity	not available
Solubility	soluble in water
Partition coefficient: n-octanol/water	See section 12.
Vapour pressure	17,4-20 hPa at 20 °C (EU, 2007)
Density and/or relative density	1,21 g/cm ³
Relative vapour density	not available
Particle characteristics	not applicable based on physical state

9.2. Other information**9.2.1. Information with regard to physical hazard classes****Corrosive substances or mixtures for metals**

Given the classification of sodium hypochlorite, with reference to the registration dossiers, the product is classified as a precautionary corrosive to metals.

9.2.2. Other safety characteristics

Total solids (250°C / 482°F) 100,00 %

SECTION 10. Stability and reactivity**10.1. Reactivity**

Exothermic reactions are possible in contact with strong reducing agents. The substance is highly reactive.

10.2. Chemical stability

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

The stability of the solution decreases under the action of heat, light and in the presence of impurities (traces of iron, nickel, copper, cobalt, aluminum, manganese)

10.3. Possibility of hazardous reactions

Contact with strong acids liberates chlorine and chlorine dioxide gases. Releases hydrogen in reaction with metals.

10.4. Conditions to avoid

Protect from light. Sensitive to humidity.

10.5. Incompatible materials

Strong acids, ammonia, metals (such as stainless steel, copper and copper alloys, aluminum, zinc), combustible materials. Reacts with acid solutions of ammonium salts to generate nitrogen trichloride (explosive compound).

10.6. Hazardous decomposition products

Chlorine. Sodium chlorate. Hypochlorous acid. Oxygen.

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

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effects of exposure to the product.

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

LD50 (Dermal):

> 20000 mg/kg Coniglio (equivalente o similare a OECD 402)

LD50 (Oral):

8910 mg/kg Ratto (soluzione al 12,5%; INRS, 2006)

LC50 (Inhalation vapours):

> 10,5 mg/l/1h Ratto (INRS, 2006)

SODIUM HYPOCHLORITE, SOLUTION 1,5% CL ACTIVE

Method: equivalent or similar to OECD 401

Reliability (Klimisch Score): 2

Species: rat (wistar; male)

Exposure: oral

Results: LD50 = 1100 mg/kg BW (12.5% Cl solution)

Method: equivalent or similar to OECD 403

Reliability (Klimisch Score): 2

Species: rat (albino; male)

Exposure: Inhalation (vapors)

Results: LD50> 10.5 mg/L Air

Method: equivalent or similar to OECD 402

Reliability (Klimisch Score): 2

Species: rabbit (albino; male/female)

Exposure: dermal

Results: LD50> 2000 mg/kg BW.

SKIN CORROSION / IRRITATION

Causes skin irritation

SODIUM HYPOCHLORITE, SOLUTION 1,5% CL ACTIVE

Causes severe skin burns (Harmonized Classification, Annex VI, CLP Reg.).

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

SODIUM HYPOCHLORITE, SOLUTION 1,5% CL ACTIVE

Causes serious eye damage (Harmonized Classification, Annex VI, CLP Reg.).

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

SODIUM HYPOCHLORITE, SOLUTION 1,5% CL ACTIVE

Method: equivalent or similar to OECD 406

Reliability (Klimisch Score): 2

Species: Guinea pig (Dunkin-Hartley; male/female)

Exposure: dermal

Results: non-sensitizing for the skin (40% water solution V/V).

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

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SODIUM HYPOCHLORITE, SOLUTION 1,5% CL ACTIVE
Method: OECD 471 - In vitro test
Reliability (Klimisch score): 1
Species: bacteria (Salmonella Typhimurium: TA98, TA100, TA102)
Results: negative

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

SODIUM HYPOCHLORITE, SOLUTION 1,5% CL ACTIVE
Based on the available data, the substance has no carcinogenic effects and is not classified under the relevant hazard class CLP.

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on sexual function and fertility

SODIUM HYPOCHLORITE, SOLUTION 1,5% CL ACTIVE
Method: equivalent or similar to OECD Guideline 415
Reliability (Klimisch score): 1
Species: rat, Long-Evans, male/female
Exposure: oral
Results: no adverse effects observed
NO(A)EL
Male parent ≥ 5.0 mg/kg bw/day
Female parent ≥ 5.0 mg/kg bw/day
F1 Male ≥ 5.0 mg/kg bw/Day
F1 Female ≥ 5.0 mg/kg bw/Day

Adverse effects on development of the offspring

SODIUM HYPOCHLORITE, SOLUTION 1,5% CL ACTIVE
Method: equivalent or similar to OECD Guideline 414
Reliability (Klimisch score): 1
Species: rat, Sprague-Dawley Male/Female
Exposure: oral
Results: NOAEL (teratogenesis): ≥ 5.7 mg/kg bw/day

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

SODIUM HYPOCHLORITE, SOLUTION 1,5% CL ACTIVE
Based on available data, the substance has no specific target organ toxicity effects for single exposure and is not classified under the relevant CLP hazard class.

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

SODIUM HYPOCHLORITE, SOLUTION 1,5% CL ACTIVE
Based on available data, the substance has no specific target organ toxicity effects on repeated exposure and is not classified under the relevant CLP hazard class.

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ASPIRATION HAZARD

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 the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

SODIUM HYPOCHLORITE, SOLUTION

1,5% CL ACTIVE

LC50 - for Fish

0,032 mg/l/96h (Oncorhynchus kisutch)

EC50 - for Crustacea

0,141 mg/l/48h (Daphnia magna; OECD 202)

EC50 - for Algae / Aquatic Plants

0,036 mg/l/72h (Pseudokirchneriella subcapitata; OECD 201)

NOEC Chronic fish

0,04 mg/l/28d Menidia peninsulae (publication, no guidelines followed)

NOEC Chronic Crustacea

0,007 mg/l/14d Different species (Liden et al., 1980)

NOEC Chronic Algae / Aquatic Plants

0,02 mg/l/96h Myriophyllum spicatum (Water Res. 18(8), 1037-1043)

12.2. Persistence and degradability

SODIUM HYPOCHLORITE, SOLUTION 1,5% CL

ACTIVE

Degradability: information not available (column 2, annex VII REACH)

12.3. Bioaccumulative potential

SODIUM HYPOCHLORITE, SOLUTION

1,5% CL ACTIVE

Partition coefficient: n-octanol/water

-3,42 Log Kow (calculated with KOWWIN v1.67)

12.4. Mobility in soil

Information not available

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 \geq 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**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazards of the wastes containing this product shall be evaluated according to applicable regulations. (Directive 2008/98/EC as modified by subsequent amendments and transpositions into national law). Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

The legal responsibility for disposal lies with the producer / holder of the waste.

Different EWC (European Waste Code) codes may be applied to this product according to the specific circumstances that generated the waste, any alterations and contaminations.

The product as it is, out of specification in the original packaging, or poured into a suitable container for disposal as waste, or the product in specification but no longer usable (for example following an accidental spill), is to be classified with a code EWC compatible with the description of use indicated in section 1.2.

The suitable final destination of the waste will be assessed by the manufacturer according to the chemical-physical characteristics of the waste itself compatible with the authorized plant to which it will be conferred for recovery, treatment or final disposal in the manner prescribed by current regulations. Disposal via the wastewater drain is not permitted

CONTAMINATED PACKAGING

Contaminated packaging must be sent, properly labeled, for recovery or disposal in compliance with national waste management regulations and is to be classified with the following EWC code:

15 01 10*: Packaging containing residues of or contaminated by hazardous substances

SECTION 14. Transport information**14.1. UN number or ID number**

ADR / RID, IMDG, IATA: 1791

14.2. UN proper shipping name

ADR / RID: HYPOCHLORITE SOLUTION

IMDG: HYPOCHLORITE SOLUTION

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: III

14.5. Environmental hazards

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ADR / RID: NO
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: 5 L	Tunnel restriction code: (E)
	Special provision: -		
IMDG:	EMS: F-A, S-B	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 856
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 852
	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: None

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

Product

Point 3
Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008:
(a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F;
(b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10;
(c) hazard class 4.1;
(d) hazard class 5.1.

Contained substance

Point 75
Substances falling within one or more of the following points:
(a) substances classified as any of the following in Part 3 of Annex VI to Regulation (EC) No 1272/2008:
— carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, but excluding any

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such substances classified due to effects only following exposure by inhalation
— reproductive toxicant category 1A, 1B or 2 but excluding any such substances classified due to effects only following exposure by inhalation — skin sensitiser category 1, 1A or 1B
— skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2
— serious eye damage category 1 or eye irritant category 2 (b) substances listed in Annex II to Regulation (EC) No 1223/2009 of the European Parliament and of the Council ()*
(c) substances listed in Annex IV to Regulation (EC) No 1223/2009 for which a condition is specified in at least one of the columns g, h and i of the table in that Annex
(d) substances listed in Appendix 13 to this Annex. The ancillary requirements in paragraphs 7 and 8 of column 2 of this entry apply to all mixtures for use for tattooing purposes, whether or not they contain a substance falling within points (a) to (d) of this column of this entry

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 \geq 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.

15.2. Chemical safety assessment

A chemical safety assessment has been performed 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
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

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Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H290	May be corrosive to metals.
H314	Causes severe skin burns and 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.
H412	Harmful 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 as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- 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 as for REACH Regulation
- 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
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)

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- 15. Regulation (EU) 2019/521 (XII Atp. CLP)
- 16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
- 17. Regulation (EU) 2019/1148
- 18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
- 19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
- 20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
- 21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- 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

Note for the recipient of the Safety Data Sheet (SDS):

It is the recipient of this SDS who must ensure that the information contained is read and understood by all persons who handle, store, use, or otherwise come into contact in any way with the substance or mixture to which this sheet refers. In particular, the recipient must provide adequate training to personnel assigned to the use of dangerous substances or mixtures. The recipient must ensure the suitability and completeness of the information in relation to the specific use of the substance or mixture.

However, the substance or mixture to which this SDS refers must not be used for uses other than those specified in section 1. No responsibility is assumed for improper uses. Since the use of the product does not fall under the direct control of the Supplier, it is the user's obligation to observe, under his own responsibility, the laws and regulations in force regarding national and Community hygiene and safety.

The information contained in this SDS is provided in good faith and is based on 01 / 02 / 03 05 / 06 / 08 /09 / 11/ 12 /14/ 16.

the current state of scientific and technical knowledge, at the revision date indicated, available from the Supplier indicated in section 1 of this sheet. The SDS should not be interpreted as a guarantee of any specific property of the substance or mixture. The information refers only to the substance or mixture specifically designated in section 1 and may not be valid for the substance or mixture used in combination with other materials or in other processes not specifically indicated in the text.

This version of the SDS supersedes all previous versions.

Changes from the previous revision

Changes have been made to the following sections:

01 / 02 / 03 05 / 06 / 08 /09 / 11/ 12 /14/ 16.

ATTACHED EXPOSURE SCENARIOS

Substance name	Substance registration number	Attached exposure scenarios
Sodium hypochlorite, 1,5% Cl active solution	01-2119488154-34	GES4_P