SAFETY DATA SHEET

HETI Klooripesu PRO

The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued	21.11.2018
Revision date	21.11.2018

1.1. Product identifier

Product name	HETI Klooripesu PRO
Article no.	32. 70002304, 70002305
GTIN No.	6414505075304, 6414505075311
Product definition	A concentrated universal disinfectant with washing effects, suitable for one-off disinfection and cleaning of all washable surfaces and objects in health care and food institutions, in medical, veterinary practice and in the communal hygiene. For professional use.
Extended SDS with ES incorporated	No

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

Use of the substance / preparation	A concentrated universal disinfectant with washing effects, suitable for one-off disinfection and cleaning of all washable surfaces and objects in health care and food institutions, in medical, veterinary practice and in the communal hygiene. For professional use.
Uses advised against	Not use for metal surfaces, fabric, skin, wood, rubber. Not use for any purpose other than that for which it is intended.
The chemical can be used by the general public	No
The chemical is used by general public only	No

1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name	Berner Ltd/Pro
Office address	Hitsaajankatu 24
Postal address	P.O.Box 22
Postcode	00811

City	Helsinki
Country	Finland
Telephone number	+3582079100
Email	pro@berner.fi

1.4. Emergency telephone number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 2; H411
Substance / mixture hazardous properties	Causes severe skin burns and eye damage. Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictograms (CLP)

Composition on the label	Sodium hypochlorite, solution ...% Cl active 4,7 %, Sodium hydroxide < 1 %
Signal word	Danger
Hazard statements	H314 Causes severe skin burns and eye damage. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements	P273 Avoid release to the environment. 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): Remove / Take off immediately all contaminated clothing. Rinse skin with water / 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 or doctor / physician.
Supplemental label information	EUH206 Warning! Do not use together with other products. May release dangerous gases (chlorine). Active chlorine released from sodium hypochlorite 45 g/kg.

2.3. Other hazards

PBT / vPvB	The mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents	Notes
Sodium hypochlorite, solution ...% Cl active	CAS No.: 7681-52-9 EC No.: 231-668-3 Index No.: 017-011-00-1	Skin Corr. 1B; H314; Aquatic Acute 1; H400; M-factor 1; CLP classification, notes: B	4,7 %	
Sodium hydroxide	CAS No.: 1310-73-2 EC No.: 215-185-5 Index No.: 011-002-00-6	Skin Corr. 1A; H314;	< 1 %	

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Get medical attention immediately! Show this safety data sheet to the doctor in attendance.
Inhalation	Move the victim to fresh air. Keep the affected person warm and at rest. Get prompt medical attention.
Skin contact	Take off all contaminated clothing immediately. Immediately flush skin with large amounts of water. Get medical attention immediately if symptoms occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately.
Ingestion	Do NOT induce vomiting. Get medical attention immediately. Clean mouth with water and drink afterwards plenty of water.

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

General symptoms and effects	Effect of burns to the eyes, mucous membranes and skin.

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

Medical treatment	In case of to eyes contact, ingestion and in other health problems or should the symptoms persist, always seek medical advice and provide information contained in this MSDS. Treat symptomatically. Show this safety data sheet to the doctor in attendance.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product itself does not burn. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Improper extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	When heated and in case of fire, toxic vapours/gases may be formed. Chlorine.

5.3. Advice for firefighters

Personal protective equipment	In case fires wear full protective clothing, eyes protection and suitable respiratory system protection.
Fire fighting procedures	In case of release to the sewers act upon emergency plans (capturing and/or diluting with water). Prevent mixing with acids.
Special protective equipment for firefighters	Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Evacuate personnel to safe areas. Avoid release to the environment. Ensure adequate ventilation.
Personal protection measures	For personal protection see section 8. Avoid contact with skin and eyes.

6.2. Environmental precautions

Environmental precautionary measures	Avoid release to the sewers, water courses, soil or environment. In case of accidental discharge of large amount of the concentrated product to the surface water, ground water or waste water, notify local authorities according to local regulations (e.g. fire brigade, police, rescue police, water course administrator). If released, the preparation must not come in contact with acids (risk of toxic gas chlorine release).

6.3. Methods and material for containment and cleaning up

Clean up	The spilled preparation shall be absorbed into an appropriate absorption material (e.g. universal sorbents, sorbents for capturing aggressive substances) and place it into a closable container, prevent release into the sewerage and water streams, or provide sufficient dilution with water. Do not absorb in sawdust or other combustible materials.

6.4. Reference to other sections

Other instructions	For suitable protective equipment, see section 8. Dispose of waste, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Work in areas with sufficient ventilation, use personal protective equipment and prevent excessive contamination of workers by the preparation. Avoid inhalation of vapours and contact with skin and eyes. Wear personal protective equipment. Avoid contact with other substances, especially acidic ones. Avoid release into the environment during manipulation.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Store in closed original container at temperatures between 5°C and 25°C. Keep in a dry, cool and well-ventilated place. Keep away from heat and sources of

ignition. Keep away from direct sunlight. Do not store near acids.

7.3. Specific end use(s)

Specific use(s) -

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
Sodium hydroxide	CAS No.: 1310-73-2	**Limit value (short term)** Value: 2 mg/m³	

DNEL / PNEC

DNEL Comments: –

DMEL

Group: Professional
Route of exposure: Acute inhalation (systemic)
Value: 3,1 mg/m³

Group: Professional
Route of exposure: Acute inhalation (local)
Value: 3,1 mg/m³

Group: Professional
Route of exposure: Long-term inhalation (local)
Value: 1,55 mg/m³

Group: Professional
Route of exposure: Long-term inhalation (systemic)
Value: 1,55 mg/m³

Group: Consumer
Route of exposure: Acute inhalation (local)
Value: 3,1 mg/m³

Group: Consumer
Route of exposure: Long-term inhalation (systemic)
Value: 1,55 mg/m³

Group: Consumer
Route of exposure: Long-term oral (local)
Value: 0,26 mg/kg bw/day

8.2. Exposure controls

Precautionary measures to prevent exposure

Appropriate engineering controls

Prevent contamination of workers by the preparation. Observe regulations for handling and storage; provide efficient ventilation. When working, do not eat, drink and smoke and observe regular hygiene conditions for work. Wash your hands and face thoroughly with water and soap after work, use reparation lotion for hands.

Product related measures to prevent exposure	Ensure that eye flushing systems and safety showers are located close to the working place. Avoid contact with skin, eyes and clothing. Ensure that only personnel using personal protective aids and acquainted with nature of the preparation, instructions for use and conditions of personal and environmental protection is allowed to work with the preparation.

Eye / face protection

Required Properties	Safety glasses with side-shields conforming to EN166 Wear face protection.

Hand protection

Skin- / hand protection, short term contact	Gloves. Rubber (natural, latex).
Hand protection, comments	Replace gloves as soon as you notice signs of deterioration. It is recommended to use CE III gloves in accordance with EN 420 and EN 374 for prolonged exposure to professional / industrial users using the product.

Skin protection

Suitable protective clothing	Wear apron or protective clothing in case of splashes. Plastic or rubber gloves, boots and suit.

Respiratory protection

Respiratory protection necessary at	For regular use or when working in a closed area, it is recommended to provide sufficient ventilation and exhaustion of the area.

Appropriate environmental exposure control

Environmental exposure controls	Observe instructions for handling and storage, particularly ensure provisions preventing spill of concentrated mixture into watercourses, soil and sewerage

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	Greenish. Yellowish.
Odour	characteristic Chlorine.
Odour limit	Comments: –
pH	Status: In delivery state Value: 12
Melting point / melting range	Value: -15 – 18 °C
Boiling point / boiling range	Value: 97 °C
Flash point	Comments: Not determined.
Evaporation rate	Comments: –
Flammability (solid, gas)	–

Lower explosion limit with unit of measurement	Comments: –
Upper explosion limit with units of measurement	Comments: –
Vapour pressure	Value: 25 hPa Comments: 13% concentrated solution NaOCl
Vapour density	Comments: –
Relative density	Value: 1,07
Solubility	Medium: Water Comments: Miscible with water.
Partition coefficient: n-octanol/ water	Comments: –
Auto-ignition temperature	Comments: –
Decomposition temperature	Comments: –
Oxidising properties	slight oxidizing properties

9.2. Other information

Physical hazards

Content of VOC	Comments: The preparation does not contain volatile organic substances (VOC).

Other physical and chemical properties

Physical and chemical properties	-

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Stable under normal conditions. The mixture reacts with concentrated as well as diluted acids, acidic substances, reducing and strong oxidising agents and ammonium.

10.2. Chemical stability

Stability	Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Stable under recommended storage conditions. The mixture reacts with concentrated as well as diluted acids and acidic substances, reducing and strong oxidizing agents and ammonium, the possibility of a hazardous chemical reaction (risk of escape toxic gases – chlorine).

10.4. Conditions to avoid

Conditions to avoid	Avoid exposure to high temperatures or direct sunlight. Prevent shaking the product – it decreases its usability life.

10.5. Incompatible materials

Materials to avoid	Concentrated as well as diluted acids and acidic substances, reducing and strong oxidizing agents, ammonium.

10.6. Hazardous decomposition products

Hazardous decomposition products	Chlorine, or chlorine oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	Type of toxicity: Acute Effect tested: LD50 Route of exposure: Oral Value: 8910 mg/kg Species: Rat Comments: Sodium hypochlorite Type of toxicity: Acute Effect tested: LDlo Route of exposure: Oral Value: 500 mg/kg Species: rotta Comments: Sodium hypochlorite Type of toxicity: Acute Effect tested: LD50 Route of exposure: Dermal Value: 1350 mg/kg Species: kaniini Comments: Sodium hypochlorite

Other information regarding health hazards

Skin corrosion / irritation, other information	Causes severe burns.
Eye damage or irritation other information	Strongly corrosive. Causes severe burns and serious eye damage. Immediate first aid is imperative.
General respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Assessment of germ cell mutagenicity, classification	The criteria for classification are not met based on available data.
Carcinogenicity, other information	The criteria for classification are not met based on available data.
Reproductive toxicity	The criteria for classification are not met based on available data.
Assessment of specific target organ toxicity - single exposure, classification	The criteria for classification are not met based on available data.
Assessment of specific target organ toxicity - repeated exposure, classification	The criteria for classification are not met based on available data.

Aspiration hazard, comments	The criteria for classification are not met based on available data.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity, fish	Toxicity type: Acute Value: 125 mg/l Effect dose concentration : LC50 Exposure time: 96 Comments: Sodium hypochlorite
Aquatic toxicity, algae	Toxicity type: Acute Value: 0,0021 mg/l Effect dose concentration : EC50 Comments: Sodium hypochlorite Toxicity type: Chronic Value: 0,0021 mg/l Effect dose concentration : NOEC Comments: Sodium hypochlorite

12.2. Persistence and degradability

Persistence and degradability description/evaluation	The preparation decomposes to sodium hypochlorite and water. The used surface-active substances are at least 90% degradable. Sodium hypochlorite is not persistent.

12.3. Bioaccumulative potential

Bioaccumulative potential	Not established.

12.4. Mobility in soil

Mobility	Mobile liquid. Soluble in water. Dangerous for the environment: May cause long-term adverse effects in the aquatic environment.

12.5. Results of PBT and vPvB assessment

PBT assessment results	This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).
vPvB evaluation results	This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Other adverse effects

Other adverse effects, comments	Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal	Dispose of as hazardous waste in compliance with local and national regulations.

EWC waste code	EWC waste code: 200129 detergents containing dangerous substances Classified as hazardous waste: Yes

SECTION 14: Transport information

Dangerous goods	Yes

14.1. UN number

ADR/RID/ADN	1791
IMDG	1791
ICAO/IATA	1791
Comments	-

14.2. UN proper shipping name

Proper shipping name English ADR/RID/ADN	HYPOCHLORITE SOLUTION
ADR/RID/ADN	HYPOCHLORITE SOLUTION
Technical name/danger releasing substance ADR/RID/ADN	Natriumhypokloriitti
IMDG	HYPOCHLORITE SOLUTION
Technical name/danger releasing substance IMDG	Natriumhypokloriitti
ICAO/IATA	HYPOCHLORITE SOLUTION
Technical name/danger releasing substance ICAO/IATA	Natriumhypokloriitti
Comments	-

14.3. Transport hazard class(es)

ADR/RID/ADN	8
Classificaton code ADR/RID/ADN	C9
IMDG	8
ICAO/IATA	8

14.4. Packing group

ADR/RID/ADN	III
IMDG	III
ICAO/IATA	III
Comments	-

14.5. Environmental hazards

IMDG Marine pollutant	Yes
Comments	Avoid release to the environment.

14.6. Special precautions for user

14.7. Maritime transport in bulk according to IMO instruments

Product name	HYPOCHLORITE SOLUTION

Additional information

Hazard label ADR/RID/ADN	8
Hazard label IMDG	8
Hazard label ICAO/IATA	8

ADR/RID Other information

Tunnel restriction code	E
Transport category	3
Hazard No.	80
Other applicable information ADR/RID	80

IMDG Other information

EmS	F-A, S-B

SECTION 15: Regulatory information

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

Legislation and regulations	This mixture contains only ingredients which have been registered, or are exempt from registration, according to Regulation (EC) No. 1907/2006 (REACH). REGULATION (EC) No 1272/2008 Regulation No.648/2004/EC on detergents. Regulation No.528/2012/EC concerning the making available on the market and use of biocidal products.

15.2. Chemical safety assessment

Chemical safety assessment performed	No

SECTION 16: Other information

List of relevant H-phrases (Section 2 and 3)	H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects.
Recommended restrictions on use	Only for professional use. The mixture should not be used for any other purpose than determined (see section 1.2).
Additional information	Manufacturer and the label of the product.
Key literature references and sources for data	The information provided in this Safety Data Sheet is correct to the best of our

	knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.
Version	1