

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product name : Lunosept Concentrate
Product code : 582
Type of product : Detergent

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Main use category : Professional use
Use of the substance/mixture : Bleaching agent

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet**Manufacturer**

Christeyns NV
Afrikalaan 182
9000 GENT - Belgium
T +32 9 223 38 71
info@christeyns.com - <http://www.christeyns.com/>

1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number	Comment
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	0870 243 2241	

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Met. Corr. 1 H290
Skin Corr. 1B H314
Aquatic Acute 1 H400

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



GHS05

GHS09

CLP Signal word : Danger

Hazardous ingredients : Sodium hypochlorite

Hazard statements (CLP) : H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
H400 - Very toxic to aquatic life.

Precautionary statements (CLP) : P260 - Do not breathe mist, spray, vapours.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection.
P303+P361+P353 - IF ON SKIN (or hair): 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/doctor.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

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EUH-statements : EUH031 - Contact with acids liberates toxic gas.

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Sodium hypochlorite	(CAS-no) 7681-52-9 (Einecs nr) 231-668-3 (EG annex nr) 017-011-00-1 (REACH-no) 01-2119488154-34	10 - 15	Met. Corr. 1, H290 Skin Corr. 1B, H314 Aquatic Acute 1, H400 (M=10)

Specific concentration limits:

Name	Product identifier	Specific concentration limits
Sodium hypochlorite	(CAS-no) 7681-52-9 (Einecs nr) 231-668-3 (EG annex nr) 017-011-00-1 (REACH-no) 01-2119488154-34	(C >= 5) EUH031

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice : In case of doubt or persistent symptoms, consult always a physician.

Inhalation : Take victim to fresh air, in a quiet place and if necessary take medical advice.

Skin contact : Immediately remove contaminated clothing or footwear. Wash immediately with plenty of water. In case of faintness or symptoms of skin irritation appear, take medical advice.

Eye contact : Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Seek medical attention immediately.

Ingestion : Rinse mouth out with water. Do not induce vomiting. Immediately consult a doctor/medical service.

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

Acute effects inhalation : Inhalation may cause irritation (cough, short breathing, difficulty in breathing).

Acute effects skin : Burns upon contact with the skin.

Acute effects eyes : Corrosive to eyes.

Acute effects oral route : Burns of the upper digestive and respiratory tracts.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : All extinguishing agents can be used.

Unsuitable extinguishing media : Not applicable.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released. Corrosive vapours. Chlorine. Hydrogen chloride.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers.

Protection during firefighting : Use self-contained breathing apparatus and chemically protective clothing.

Other information : Control the vapours with a water spray.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

6.1.2. For emergency responders

Protective equipment : Use self-contained breathing apparatus and chemically protective clothing.

6.2. Environmental precautions

Do not contaminate ground and surface water.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal.

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

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hygiene measures : Take off immediately all contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.

Incompatible products : Oxidizing agent. Strong acids. Strong bases.

Material(s) to avoid : Never mix with other materials.

Packaging materials : Store always product in container of same material as original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Sodium hypochlorite (7681-52-9)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	3,1 mg/m ³
Acute - local effects, inhalation	3,1 mg/m ³
Long-term - systemic effects, inhalation	1,55 mg/m ³
Long-term - local effects, inhalation	1,55 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	3,1
Acute - local effects, inhalation	3,1 mg/m ³
Long-term - systemic effects, oral	0,26 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1,55 mg/m ³
Long-term - local effects, inhalation	1,55 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0,00021 mg/l
PNEC aqua (marine water)	0,00042 mg/l
PNEC aqua (intermittent, freshwater)	0,00026 mg/l
PNEC (STP)	
PNEC sewage treatment plant	0,03 mg/l

8.2. Exposure controls

Hand protection:

Chemical resistant PVC gloves (to European standard EN 374 or equivalent)

Eye protection:

Safety glasses with side-shields (EN 166)

Protective equipment:

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Wear suitable protective clothing minimum (EN 13034) Type 6 equipment

Respiratory protection:

Provide adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. (Type B)

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Physical state/form	: Liquid.
Colour	: pale. Yellow.
Odour	: chlorine.
Odour threshold	: No data available
pH	: 10,8 (1%)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point/range	: No data available
Freezing point	: No data available
Boiling point/Boiling range	: >= 100 °C
Flash point	: Not applicable
Autoignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 1.7 kPa (20°C)
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1220 ± 25 kg/m ³
Solubility	: Water: completely soluble
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

May be corrosive to metals.

10.2. Chemical stability

Unstable on exposure to heat.

10.3. Possibility of hazardous reactions

Reacts with (some) metals.

10.4. Conditions to avoid

All heat sources, including direct sunlight. humid air. Contact with acids liberates toxic gas (chlorine).

10.5. Incompatible materials

Never mix with other materials. Strong reducing agents. Strong acids. Strong bases. Metals. Organic materials.

10.6. Hazardous decomposition products

By contact with acids poisonous chloric gases can be released under heat development.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

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Sodium hypochlorite (7681-52-9)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 10,8 (1%)
Serious eye damage/irritation	: Serious eye damage, category 1, implicit pH: 10,8 (1%)
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity	: Very toxic to aquatic life.
Chronic aquatic toxicity	: Not classified.

Sodium hypochlorite (7681-52-9)	
LC50 fish 1	0,06 mg/l (fresh water)
LC50 fish 2	0,032 mg/l (marine water)
EC50 Daphnia 1	0,141 mg/l (Daphnia magna - fresh water)
EC50 other aquatic organisms 1	0,026 mg/l (Crassostrea virginica - marine water)

12.2. Persistence and degradability

Sodium hypochlorite (7681-52-9)	
Persistence and degradability	Strong oxidizing agent. It will react with organic substances present in soil and sediments and degrades rapidly to chloride. Sodium hypochlorite is substantially removed in biological treatment processes.

12.3. Bioaccumulative potential

Sodium hypochlorite (7681-52-9)	
Bioaccumulative potential	Bioaccumulation unlikely.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Lunosept Concentrate	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste / unused products	: Collect all waste in suitable and labelled containers and dispose according to local legislation.
European List of Waste (LoW) code	: 20 01 29* - detergents containing dangerous substances

SECTION 14: Transport information




In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA
14.1. UN number 1791	1791	1791
14.2. UN proper shipping name HYPOCHLORITE SOLUTION	HYPOCHLORITE SOLUTION	Hypochlorite solution

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ADR	IMDG	IATA
Transport document description		
UN 1791 HYPOCHLORITE SOLUTION, 8, II, (E), ENVIRONMENTALLY HAZARDOUS	UN 1791 HYPOCHLORITE SOLUTION, 8, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1791 Hypochlorite solution, 8, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard class(es)		
8	8	8
		
14.4. Packing group		
II	Not applicable	Not applicable
14.5. Environmental hazards		
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes
No supplementary information available		

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : C9
 Special provisions (ADR) : 521
 Limited quantities (ADR) : 11
 Vehicle for tank carriage : AT
 Transport category (ADR) : 2
 Hazard identification number (Kemler No.) : 80
 Tunnel code : E
 EAC code : 2X

- Transport by sea

No data available

- Air transport

No data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
 Contains no substance on the REACH candidate list
 Contains no REACH Annex XIV substances

Detergent Regulation : Labelling of contents:

Component	%
Chlorine-based bleaching agents	5-15%

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Section	Changed item	Change	Comments
5		Modified	
6		Modified	

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7		Modified	
10		Added	
14.4	Packing group (IATA)	Modified	
14.4	Packing group (IMDG)	Modified	
14.4	Packing group (ADR)	Modified	
14.6	Packing instructions (IMDG)	Modified	
15		Modified	
16		Modified	

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
ErC50 (algae)	ErC50 (algae)
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
SDS	Safety Data Sheet
STP	Sewage treatment plant
vPvB	Very Persistent and Very Bioaccumulative

Other information : It is recommended to pass the information of this safety data sheet in an appropriate form to the users. Such information is actually the best of our knowledge and believes accurate as reliable. This information relates to the specific material designated and may not be valid in combination with other products.
This safety data sheet is in compliance with 1907/2006/EEC. It is user's liabilities to take all necessary measures to meet local required laws and regulations. The producer is not responsible for any damage and loss due to the use of information mentioned in this safety data sheet.

Full text of H- and EUH-statements:

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H400	Very toxic to aquatic life.
EUH031	Contact with acids liberates toxic gas

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Met. Corr. 1	H290	Calculation method
Skin Corr. 1B	H314	Calculation method
Aquatic Acute 1	H400	Calculation method

SDS Christeyns (EC 2015/830)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product