CHLOR 12

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Reference number: 161161338

Issue date: 21/11/2002 Revision date: 04/12/2024 Supersedes version of: 12/04/2023 Version: 4.0

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

1.1. Product identifier

Product form	:	Mixture
Product name	:	CHLOR 12
Product code	:	161161338
Type of product	:	Cleaner

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

1.2.1. Relevant identified uses

No additional information available

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

UNICLEAN CHEMICAL & GASES LTD - UNIMARINE GROUP
PTOLEMEON 53
3041 LIMASSOL
CYPRUS
T +35725331054
info@unimarine-services.com

1.4. Emergency telephone number

Emergency number : +35725331054

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 1	H314
Hazardous to the aquatic environment – Chronic Hazard, Category 1	H410

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

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

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS05 GHS09

Signal word (CLP) : Danger

Contains : Sodium hypochlorite, solution

Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P301+P330+P331+P310 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER.
P303+P361+P353+P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a doctor.
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.
P391 - Collect spillage.

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

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

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, solution	CAS-No.: 7681-52-9 EC-No.: 231-668-3 EC Index-No.: 017-011-00-1 REACH-no: 01-2119488154-34	10 - 15	Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If medical advice is needed, have product container or label at hand.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water. If skin burns appear, call a doctor immediately.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after inhalation : May cause respiratory irritation.
Symptoms/effects after skin contact : Burns.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard	:	Not flammable.
Reactivity in case of fire	:	In case of contact with acid may give off chlorine.
Hazardous decomposition products in case of fire	:	Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting	:	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	:	Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe mist, spray, vapours.

6.1.2. For emergency responders

Protective equipment	:	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	:	Stop leak if safe to do so. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	:	Collect spillage.
Methods for cleaning up	:	Take up liquid spill into absorbent material.
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	:	Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe mist, spray, vapours. Wear personal protective equipment.
Hygiene measures	:	Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	:	Store locked up. Store in a well-ventilated place. Keep cool.
Incompatible products	:	Acids. Flammable liquids. Reducing agent.
Incompatible materials	:	Metals.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

CHLOR 12	
DNEL/DMEL (Workers)	
Acute - local effects, dermal	1,55 mg/m³
Acute - local effects, inhalation	3,1 mg/m³
Long-term - local effects, dermal	0,5 % in mixture
PNEC (Water)	
PNEC aqua (freshwater)	0,21 µg/L
PNEC aqua (marine water)	0,042 µg/L

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

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

8.2.2. Personal protection equipment

Personal protective equipment:
Combined gas/dust mask with filter type P3.

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Safety glasses

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Protective gloves

8.2.2.3. Respiratory protection

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

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Yellow.
Appearance	:	Clear.
Odour	:	chlorine-like.
Odour threshold	:	Not available
Melting point	:	Not applicable
Freezing point	:	Not available
Boiling point	:	100 °C
Flammability	:	Not applicable
Explosive limits	:	Not available
Lower explosion limit	:	Not available
Upper explosion limit	:	Not available
Flash point	:	Not available
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	> 12,5
Viscosity, kinematic	:	Not available
Viscosity, dynamic	:	3 – 4 mPa.s
Solubility	:	Soluble in water.
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Partition coefficient n-octanol/water (Log Pow)	:	-3,42
Vapour pressure	:	20 hPa
Vapour pressure at 50°C	:	Not available
Density	:	1,1 – 1,15
Relative density	:	Not available
Relative vapour density at 20°C	:	Not available
Particle characteristics	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

If the product is involved in a fire, it can release toxic chlorine gases. May cause or intensify fire; oxidiser. React in contact of acids. Reacts with (some) metals and their compounds.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Contact with acids liberates toxic gas. Decomposes on exposure to temperature rise: release of (highly) toxic gases/vapours.

10.4. Conditions to avoid

Direct sunlight. High temperature.

10.5. Incompatible materials

Acids. Combustible materials. metals. Reducing agent.

10.6. Hazardous decomposition products

Chlorine. Hydrogen chloride.

SECTION 11: Toxicological information

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

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

CHLOR 12	
LD50 oral rat	> 1100 mg/kg OECD 401
LD50 dermal rabbit	> 20000 mg/kg OECD 402
LC50 Inhalation - Rat	> 10,5 mg/l OECD 403

Sodium hypochlorite, solution (7681-52-9)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 Inhalation - Rat	> 42 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns.
pH: > 12,5

Serious eye damage/irritation : Assumed to cause serious eye damage
pH: > 12,5

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

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short–term (acute) : Not classified
Hazardous to the aquatic environment, long–term (chronic) : Toxic to aquatic life with long lasting effects.

CHLOR 12	
LC50 - Fish [1]	0,06 mg/l Salmo gairdneri
EC50 - Crustacea [1]	0,141 mg/l Daphnia magna

Sodium hypochlorite, solution (7681-52-9)	
LC50 - Fish [1]	0,22 – 0,62 mg/l Pimephales promelas
EC50 - Crustacea [1]	0,141 mg/l Daphnia magna 48 u - OESO 202
NOEC chronic algae	0,0021 mg/l

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

CHLOR 12	
Partition coefficient n-octanol/water (Log Pow)	-3,42

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

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

14.1. UN number or ID number

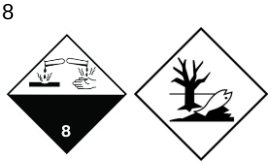
UN-No. (ADR) : UN 1791
UN-No. (IMDG) : UN 1791
UN-No. (IATA) : UN 1791
UN-No. (ADN) : UN 1791
UN-No. (RID) : UN 1791

14.2. UN proper shipping name

Proper Shipping Name (ADR) : UN 1791, HYPOCHLORITE SOLUTION, 8, III
Proper Shipping Name (IMDG) : UN 1791, Hypochlorite solution, 8, III
Proper Shipping Name (IATA) : UN 1791, Hypochlorite solution, 8, III
Proper Shipping Name (ADN) : UN 1791, HYPOCHLORITE SOLUTION, 8, III
Proper Shipping Name (RID) : UN 1791, HYPOCHLORITE SOLUTION, 8, III
Transport document description (ADR) : UN 1791 HYPOCHLORITE SOLUTION, 8, II, (E), ENVIRONMENTALLY HAZARDOUS, 8, III
Transport document description (IATA) : UN 1791 , 8, ENVIRONMENTALLY HAZARDOUS, III

14.3. Transport hazard class(es)

ADR
Transport hazard class(es) (ADR) : 8
Danger labels (ADR) : 8
:



IMDG

Transport hazard class(es) (IMDG) : 8
Danger labels (IMDG) : 8

IATA

Transport hazard class(es) (IATA) : 8
Danger label (IATA) : 8

ADN

Transport hazard class(es) (ADN) : 8
Danger label (ADN) : 8

RID

Transport hazard class(es) (RID) : 8
Danger label (RID) : 8

14.4. Packing group

Packing group (ADR) : III
Packing group (IMDG) : III
Packing group (IATA) : III
Packing group (ADN) : III
Packing group (RID) : III

14.5. Environmental hazards

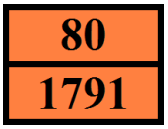
Dangerous for the environment : Yes
Marine pollutant : Yes
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : C9
Special provisions (ADR) : 521
Limited quantities (ADR) : 1l
Excepted quantities (ADR) : E2
Packing instructions (ADR) : P001, IBC02
Special packing provisions (ADR) : PP10, B5
Mixed packing provisions (ADR) : MP15
Portable tank and bulk container instructions (ADR) : T7
Portable tank and bulk container special provisions (ADR) : TP2, TP24

Tank code (ADR) : L4BV(+)
Tank special provisions (ADR) : TE11
Vehicle for tank carriage : AT
Transport category (ADR) : 2
Hazard identification number (Kemler No.) : 80
Orange plates :



Tunnel restriction code (ADR) : E
EAC code : 2X

Transport by sea
EMS Number : F-A, S-B
Special provisions : 223 274 900
Limited Quantities : 5 L

Air transport
Special provisions : A3 A803
Cargo Only Packing Instructions : 856
Cargo Only Maximum Qty / Pack : 60 L
Passenger and Cargo Packing Instructions : 852
Passenger and Cargo Maximum Qty / Pack : 5 L
Passenger and Cargo Limited Quantity Packing Instructions: Y841
Passenger and Cargo Limited Maximum Qty / Pack : 1 L

Inland waterway transport
Classification code : C9
Special provisions : 521
Limited quantity : 5 L
Equipment required : PP, EP
Fire cones number : 0

Rail transport
Hazard identification (Kemler) : 80
Classification code : C9
Hazard Label : 8
Special provisions : 521
Limited quantity : 5 L
Tunnel Restriction Code : E

14.7. Maritime transport in bulk according to IMO instruments

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

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

France

Occupational diseases	
Code	Description
RG 65	Eczematiform lesions of allergic mechanism

Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed
SZW-lijst van mutagene stoffen : None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : None of the components are listed
SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:	
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
EUH031	Contact with acids liberates toxic gas.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B

Safety Data Sheet (SDS), EU

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.