

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

1.1. Product identifier

Name of product	Chloryte / Chloryte pastille / Chloryte Sticks 111
Name of substance	calcium hypochlorite
Index No	017-012-00-7
EC No	231-908-7
CAS No	7778-54-3

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

Recommended intended purpose(s)

Product for disinfection and oxidation of pool water

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor	BAYROL Deutschland GmbH Robert-Koch-Str. 4, D-82152 Planegg Phone +49 (0) 89 85701-0
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Advice

E-mail (competent person):
ASchwarzenboeck@bayrol.eu

1.4. Emergency telephone number

NCEC, Phone (+44)(0)1865407333

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Ox. Sol. 2	H272	
Acute Tox. 4	H302	
Skin Corr. 1B	H314	
Aquatic Acute 1	H400	

Hazard Statements

H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H400	Very toxic to aquatic life.

2.2. Label elements

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



GHS03



GHS05



GHS07



GHS09

Signal word

Danger

Hazard Statements

H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H400 Very toxic to aquatic life.

Precautionary Statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P221 Take any precaution to avoid mixing with combustibles.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/eye protection.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor.
P405 Store locked up.
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous ingredients for labeling

calcium hypochlorite

Supplemental Hazard information (EU)

Contact with acids liberates toxic gas.

Special rules for supplemental label elements for certain mixtures

Warning! Do not use together with other products. May release dangerous gases (chlorine).

2.3. Other hazards

Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

SECTION 3: Composition/ information on ingredients

3.1. Substances

CAS No 7778-54-3

calcium hypochlorite

EC No 231-908-7

Index No 017-012-00-7

3.2. Mixtures

not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.

Symptoms of poisoning may not occur for hours, therefore medical supervision for at least 48 hours necessary.

Adhere to personal protective measures when giving first aid.

In case of inhalation

Remove the casualty into fresh air and keep him immobile.

Refer for medical treatment.

In case of skin contact

In case of contact with skin wash off immediately with plenty of water.

Refer for medical treatment.

In case of eye contact

Eye rinsing with water carefully while protecting unhurt eye.

Refer to medical treatment.

In case of ingestion

Do not induce vomiting.

Call for a doctor immediately.

Rinse out mouth and give plenty of water to drink.

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

No information available.

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

Treatment (Advice to doctor)

Treat symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Dry powder

Carbon dioxide

Dry sand

Water spray jet

5.2. Special hazards arising from the substance or mixture

In the event of fire the following can be released:

Hydrogen chloride (HCl)

Chlorine (Cl₂)

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Use breathing apparatus with independent air supply.

Wear full protective clothing.

Additional information

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Ensure adequate ventilation.
Avoid dust formation.
Use personal protective clothing.
Use breathing apparatus if exposed to vapours/dust/aerosol.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Take up mechanically and send for disposal.

Additional Information

Neutralize active chlorine with suitable materials (Sulphite, Thiosulphate or hydrogen peroxide aqueous solution)

6.4. Reference to other sections

Safe handling: see section 7
Disposal: see section 13
Personal protection equipment: see section 8
Emergency telephone number: see section 1

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in well-ventilated areas.

General protective measures

Avoid contact with eyes and skin
Do not inhale dust.

Hygiene measures

At work do not eat, drink and smoke.
Keep away from food and drink.
Wash hands before breaks and after work.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking
Keep at distance of acids, reducing agents and organic substances (e.g. wood, paper, fat).
Avoid entering of water in shortage.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep only in original container.

Advice on storage compatibility

Do not store with combustible materials.
Do not store together with food.
Do not store together with acids.

Further information on storage conditions

Keep container tightly closed.
Storage: cool and dry

Information on storage stability

Storage time: 5 years.

7.3. Specific end use(s)
Recommendation(s) for intended use

See section 1.2

! SECTION 8: Exposure controls/personal protection
8.1. Control parameters
! Ingredients with occupational exposure limits to be monitored

CAS No	Name	Code	[mg/m ³]	[ppm]		Remark
7782-50-5	chlorine	8 hours	1,5	0,5	1(l)	DFG, EU, Y

8.2. Exposure controls
Respiratory protection

Dust mask

Short term: filter apparatus, Filter P2

Hand protection

chemical-resistant gloves

Suitable materials (recommended: protection index 6, >480 minutes permeation time according to EN 374)

Nitrile-butadiene rubber (NBR) - 0.4 mm layer thickness

Butyl rubber (butyl) - 0.7mm layer thickness

In view of the many different types, the manufacturers' directions for use must be followed

Eye protection

tightly fitting goggles

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties
Appearance

solid in various forms

Colour

white

Odour

typical, pungent

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	10,5 - 11,5	20 °C	10 g/l		
Boiling temperature / boiling range	not determined				
decomposition point	> 175 °C				
Flash point	not applicable				
Vapourisation rate	not determined				
Flammable (solid)	not determined				
Flammability (gas)	not determined				

	Value	Temperature	at	Method	Remark
Ignition temperature	not determined				
Self ignition temperature	not determined				
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	not determined				
Relative density	not determined				
Bulk density	ca. 0,9 kg/m ³				
Vapour density	not determined				
Solubility in water	200 g/l	25 °C			
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity	not determined				

Oxidising properties
 No information available.

Explosive properties
 No information available.

9.2. Other information
 No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition can lead to the escape of irritating gases and vapours.

10.2. Chemical stability

Decomposition takes place from temperatures above:
 >175°C

10.3. Possibility of hazardous reactions

Contact with acids liberates toxic gases.

10.4. Conditions to avoid

Reactions with combustible substances.
 Reactions with acids.
 Reactions with impurities.
 Reactions with organic substances.
 Reactions with water.

10.5. Incompatible materials

Substances to avoid

Oil
Acid
Water

10.6. Hazardous decomposition products

Hydrogen chloride (HCl)
Chlorine

Thermal decomposition

Remark No decomposition if used as directed.

Additional information

Product may cause bleaching textiles, liners, paintings etc. Chlorine gas may decompose metals and is corrosive.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	850 mg/kg	rat		
Skin irritation	corrosive			
Eye irritation	strong corrosive			

Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
Mutagenicity	No data available			
Reproduction-Toxicity	No data available			
Carcinogenicity	No data available			

Experiences made from practice

After swallowing: burns in mouth, throat, oesophagus and gastrointestinal tract. Risk of perforation in the oesophagus and stomach.
Irritates respiratory tract.
Irritates mucous membranes.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 0,049 - 0,16 mg/l (96 h)	Lepomis macrochirus		M = 10
Daphnia	EC50 0,41 mg/l (48 h)	Daphnia magna		M = 1

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Other adverse effects
General regulation

Product is not allowed to be discharged into aquatic environment, drains or sewage treatment plants.

! SECTION 13: Disposal considerations
13.1. Waste treatment methods
! Waste code No.

16 05 09

Name of waste

discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

! Recommendations for the product

Remove in accordance with local official regulations.

Dispose of as hazardous waste.

The product should not be allowed to enter drains, water courses or the soil.

Recommendations for packaging

Uncontaminated packaging may be taken for recycling.

Recommended cleansing agent

Water

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	3487	3487	3487
14.2. UN proper shipping name	CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE	CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE	Calcium hypochlorite, hydrated, corrosive
14.3. Transport hazard class(es)	5.1 (8)	5.1 (8)	5.1 (8)
14.4. Packing group	II	II	II
14.5. Environmental hazards	Yes	Yes	Yes

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

Land and inland navigation transport ADR/RID

Hazard label(s) 5.1+8
tunnel restriction code E
Classification code OC2

Marine transport IMDG

MARINE POLLUTANT

! SECTION 15: Regulatory information

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

Authorizations

! Other regulations (EU)

Regulation (EU) 1272/2008 (CLP), Regulation (EU) 1907/2006 (REACH), DECISION 2000/532/EG (list of wastes)
Regulation (EU) 528/2012 (BPR)

15.2. Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.

! SECTION 16: Other information

! Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

Further information

Refer to product information paper.

The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 3.1

Sources of key data used

Results of own researches and examinations
Literature informations
Toxicity studies, NIOSH-Tox-Data
National legislation and regulation