

Safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



Laboratoriumdiscounter

Calcium hypochlorite $\geq 65\%$

article number: **CHC34.1**

Version: **2.0 en**

Replaces version of: 2016-09-05

Version: (1)

date of compilation: 2016-09-05

Revision: 2021-05-13

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

1.1 Product identifier

| | |
|---------------------------------|------------------------------------|
| Identification of the substance | Calcium hypochlorite |
| Article number | CHC34.1 |
| Registration number (REACH) | This information is not available. |
| Index No | 017-012-00-7 |
| EC number | 231-908-7 |
| CAS number | 7778-54-3 |

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

| | |
|-------------------------|--|
| Identified uses: | laboratory chemical laboratory and analytical use |
|-------------------------|--|

1.3 Details of the supplier of the safety data sheet

Laboratoriumdiscounter
Zandvoortstraat 75
1976BN IJmuiden
Nederland

Telephone: +31 (0) 255 700 210

e-mail: info@laboratoriumdiscounter.nl

Website: www.laboratoriumdiscounter.nl

Competent person responsible for the safety data sheet

: Department Health, Safety and Environment

e-mail (competent person)

: info@laboratoriumdiscounter.nl

1.4 Emergency telephone number

Emergency information service

Poison Centre Munich: +49/(0)89 19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

| Classification acc. to GHS | | | |
|----------------------------|---|---------------------------|------------------|
| Section | Hazard class | Hazard class and category | Hazard statement |
| 2.14 | oxidising solid | (Ox. Sol. 2) | H272 |
| 3.10 | acute toxicity (oral) | (Acute Tox. 4) | H302 |
| 3.2 | skin corrosion/irritation | (Skin Corr. 1B) | H314 |
| 3.3 | serious eye damage/eye irritation | (Eye Dam. 1) | H318 |
| 4.1A | hazardous to the aquatic environment - acute hazard | (Aquatic Acute 1) | H400 |

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| Classification acc. to GHS | | | |
|----------------------------|---|---------------------------|------------------|
| Section | Hazard class | Hazard class and category | Hazard statement |
| 4.1C | hazardous to the aquatic environment - chronic hazard | (Aquatic Chronic 1) | H410 |

Supplemental hazard information

| Code | Supplemental hazard information |
|--------|--|
| EUH031 | contact with acids liberates toxic gas |

2.2 Label elements

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

Signal word **Danger**

Pictograms

GHS03, GHS05,
GHS07, GHS09



Hazard statements

H272 May intensify fire; oxidiser
H302 Harmful if swallowed
H314 Causes severe skin burns and eye damage
H410 Very toxic to aquatic life with long lasting effects

Precautionary statements

Precautionary statements - prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves/eye protection.

Precautionary statements - response

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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/...
P370+P378 In case of fire: Use sand to extinguish - never use water.

Supplemental hazard information

EUH031 Contact with acids liberates toxic gas.

Hazardous ingredients for labelling: calcium hypochlorite ...% Cl active, Calcium hydroxide

Labelling of packages where the contents do not exceed 125 ml

Signal word: **Danger**

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Symbol(s)



H314 Causes severe skin burns and eye damage.
 P280 Wear protective gloves/eye protection.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or 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.
 EUH031 Contact with acids liberates toxic gas.
 contains: Calcium hypochlorite ...% Cl active, Calcium hydroxide

2.3 Other hazards

There is no additional information.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description of the mixture

Composition/information on ingredients.

| Name of substance | Identifier | wt % | Classification acc. to 1272/2008/EC | Pictograms | Specific Conc. Limits | M-Factors |
|----------------------------------|---|-----------|---|------------|--|--|
| calciumhypochlorite...%Cl active | CAS No 7778-54-3 EC No 231-908-7 Index No 017-012-00-7 | ≤ 70 | Ox. Sol. 2 / H272 Acute Tox. 4 / H302 Skin Corr. 1B / H314 Eye Dam. 1 / H318 Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410 EUH031 | | Skin Corr. 1B; H314: $C \geq 5\%$ Skin Irrit. 2; H315: $1\% \leq C < 5\%$ Eye Dam. 1; H318: $3\% \leq C < 5\%$ Eye Irrit. 2; H319: $0,5\% \leq C < 3\%$ | M-factor(acute)=10.0 M-factor(chronic)=10.0 |
| Calciumhydroxide | CAS No 1305-62-0 EC No 215-137-3 | ≤ 3 | Skin Irrit. 2 / H315 Eye Dam. 1 / H318 STOT SE 3 / H335 | | | |
| Calcium chlorate | CAS No 10137-74-3 EC No 233-378-2 | ≤ 2 | Ox. Sol. 3 / H272 | | | |
| Calcium chloride | CAS No 10043-52-4 EC No 233-140-8 Index No 017-013-00-2 | ≤ 2 | Eye Irrit. 2 / H319 | | | |

Remarks

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures



General notes

Take off immediately all contaminated clothing. Self-protection of the first aider.

Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

Following skin contact

After contact with skin, take off immediately all contaminated clothing, and wash immediately with polyethylene glycol, followed by plenty of water. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.

Following eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye.

Following ingestion

Rinse mouth immediately and drink plenty of water. Rinse mouth with water (only if the person is conscious). Call a physician immediately. If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects). Call a doctor.

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

Corrosion,

After eye contact: Risk of serious damage to eyes, Risk of blindness,

Following skin contact: Causes poorly healing wounds,

After ingestion: Nausea, Vomiting, Gastric perforation,

Following inhalation: Cough, pain, choking, and breathing difficulties

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

none

SECTION 5: Firefighting measures

5.1 Extinguishing media



Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings
water spray, foam, dry extinguishing powder, carbon dioxide (CO₂)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Oxidising property. Non-combustible.

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Hazardous combustion products

In case of fire may be liberated: hydrogen chloride (HCl), May produce toxic fumes of carbon monoxide if burning.

5.3 Advice for firefighters

Do not allow firefighting water to enter drains or water courses. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus. Wear full chemical protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures



For non-emergency personnel

Wearing of 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. Do not breathe dust. Avoid contact with skin, eyes and clothes.

2. Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

3. Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains.

Advices on how to clean up a spill

Take up mechanically. Control of dust.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

4. Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

1. Precautions for safe handling

Handle and open container with care. Clear contaminated areas thoroughly.

• Measures to prevent fire as well as aerosol and dust generation

Take any precaution to avoid mixing with combustibles.

Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

2. Conditions for safe storage, including any incompatibilities

Store in a dry place. Keep container tightly closed. Keep away from combustible material.

Incompatible substances or mixtures

Observe hints for combined storage.

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Consideration of other advice

• Ventilation requirements

Use local and general ventilation.

• Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C.

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

| Country | Name of agent | CAS No | Notation | Identifier | TWA [mg/m ³] | STEL [mg/m ³] | Source |
|---------|---------------------|-----------|----------|------------|--------------------------|---------------------------|---------------|
| EU | calcium dihydroxide | 1305-62-0 | r | IOELV | 1 | 4 | 2017/2398/ EU |
| GB | calcium hydroxide | 1305-62-0 | | WEL | 5 | | EH40/2005 |

Notation

r Respirable fraction

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Relevant DNELs/DMELs/PNECs and other threshold levels

• relevant DNELs of components of the mixture

| Name of substance | CAS No | Endpoint | Threshold level | Protection goal, route of exposure | Used in | Exposure time |
|-------------------|------------|----------|----------------------|------------------------------------|-------------------|----------------------------|
| Calcium hydroxide | 1305-62-0 | DNEL | 4 mg/m ³ | human, inhalatory | worker (industry) | acute - systemic effects |
| Calcium hydroxide | 1305-62-0 | DNEL | 1 mg/m ³ | human, inhalatory | worker (industry) | chronic - systemic effects |
| Calcium hydroxide | 1305-62-0 | DNEL | 1 mg/m ³ | human, inhalatory | worker (industry) | chronic - local effects |
| Calcium hydroxide | 1305-62-0 | DNEL | 4 mg/m ³ | human, inhalatory | worker (industry) | acute - local effects |
| Calcium chloride | 10043-52-4 | DNEL | 5 mg/m ³ | human, inhalatory | worker (industry) | chronic - local effects |
| Calcium chloride | 10043-52-4 | DNEL | 10 mg/m ³ | human, inhalatory | worker (industry) | acute - local effects |

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• relevant PNECs of components of the mixture

| Name of substance | CAS No | Endpoint | Threshold level | Environmental compartment | Exposure time |
|-------------------|-----------|----------|-----------------|------------------------------|------------------------------|
| Calcium hydroxide | 1305-62-0 | PNEC | 0,49 mg/l | water | intermittent release |
| Calcium hydroxide | 1305-62-0 | PNEC | 0,49 mg/l | freshwater | short-term (single instance) |
| Calcium hydroxide | 1305-62-0 | PNEC | 0,32 mg/l | marine water | short-term (single instance) |
| Calcium hydroxide | 1305-62-0 | PNEC | 3 mg/l | sewage treatment plant (STP) | short-term (single instance) |
| Calcium hydroxide | 1305-62-0 | PNEC | 1.080 mg/kg | soil | short-term (single instance) |

8.2 Exposure controls

Individual protection measures (personal protective equipment)

Eye/face protection



Use safety goggles with side protection. Wear face protection.

Skin protection



• hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

• type of material

NBR (Nitrile rubber)

• material thickness

>0,11 mm

• breakthrough times of the glove material

>480 minutes (permeation: level 6)

• other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Respiratory protection

Respiratory protection necessary at: Dust formation. Filtering device (EN 147). Type: B-P2 (combined filters for acidic gases and particles, colour code: Grey/White).

Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P2 (filters at least 94 % of airborne particles, colour code: White).

Environmental exposure controls

Keep away from drains, surface and ground water.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

| | |
|-----------------|-------------------|
| Physical state | solid (granulate) |
| Colour | white |
| Odour | like: chlorine |
| Odour threshold | No data available |

Other physical and chemical parameters

| | |
|---|-------------------------------------|
| pH (value) | 11 |
| Melting point/freezing point | 100 °C |
| Initial boiling point and boiling range | This information is not available. |
| Flash point | not applicable |
| Evaporation rate | no data available |
| Flammability(solid, gas) | These information are not available |

Explosive limits

| | |
|---------------------------------|--|
| · lower explosion limit (LEL) | this information is not available |
| · upper explosion limit (UEL) | this information is not available |
| Explosion limits of dust clouds | these information are not available |
| Vapour pressure | This information is not available. |
| Density | 2,35 g/cm ³ at 20 °C |
| Vapour density | This information is not available. |
| Bulk density | 0,9 kg/m ³ |
| Relative density | Information on this property is not available. |

Solubility(ies)

| | |
|------------------|----------------------------|
| Water solubility | miscible in any proportion |
|------------------|----------------------------|

Partition coefficient

| | |
|---------------------------|--------------------------------------|
| n-octanol/water (log KOW) | This information is not available. |
| Auto-ignition temperature | >400 °C |
| Decomposition temperature | >177 °C |
| Viscosity | not relevant (solid matter) |
| Explosive properties | Shall not be classified as explosive |
| Oxidising properties | oxidiser |

9.2 Other information

There is no additional information.

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SECTION 10: Stability and reactivity

1. Reactivity

Oxidising property.

2. Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

3. Possibility of hazardous reactions

Danger of explosion: Alkali metals, Alkaline earth metal, Alcohols, Ethanol, Organic substances, Methanol, Violent reaction with: Ammonium compounds, Halogenated hydrocarbons, Phenol, Reducing agents, Nitro compound

4. Conditions to avoid

Keep away from heat. Decomposition takes place from temperatures above: $>177\text{ }^{\circ}\text{C}$.

5. Incompatible materials

There is no additional information.

Release of toxic materials with

water - acids

6. Hazardous decomposition products

Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| Exposure route | Endpoint | Value | Species | Source |
|----------------|----------|-----------------------|---------|--------|
| oral | LD50 | 850 mg/kg | rat | |
| dermal | LD50 | $>2.000\text{ mg/kg}$ | rabbit | |

• Acute toxicity estimate (ATE)

oral 850 mg/kg

• Acute toxicity of components of the mixture

| Name of substance | CAS No | Exposure route | ATE |
|-------------------------------------|-----------|----------------|-----------|
| calcium hypochlorite ...% Cl active | 7778-54-3 | oral | 850 mg/kg |

Skin corrosion/irritation

Causes severe burns.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Summary of evaluation of the CMR properties

Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant

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Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

If swallowed

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects)

If in eyes

causes burns, Causes serious eye damage, risk of blindness

If inhaled

cough, pain, choking, and breathing difficulties, pulmonary oedema

If on skin

causes severe burns, causes poorly healing wounds

Other information

None

SECTION 12: Ecological information

12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute)

Very toxic to aquatic organisms.

| Endpoint | Value | Species | Source | Exposure time |
|----------|------------|---------------|--------|---------------|
| LC50 | 0,049 mg/l | fish | | 96 h |
| EC50 | 0,11 mg/l | daphnia magna | | 48 h |

Aquatic toxicity (acute) of components of the mixture

| Name of substance | CAS No | Endpoint | Value | Species | Exposure time |
|--|-----------|----------|------------|--|---------------|
| calcium hypochlorite ...% Cl active | 7778-54-3 | EC50 | 0,11 mg/l | daphnia magna | 48 h |
| calcium hypochlorite ...% Cl active | 7778-54-3 | LC50 | 0,13 mg/l | rainbow trout (Oncorhynchus mykiss) | 96 h |
| calcium hypochlorite ...% Cl active | 7778-54-3 | LC50 | 0,088 mg/l | Pimephales promelas | 96 h |
| Calcium hydroxide | 1305-62-0 | LC50 | 50,6 mg/l | fish | 96 h |
| Calcium hydroxide | 1305-62-0 | EC50 | 49,1 mg/l | aquatic invertebrates | 48 h |
| Calcium hydroxide | 1305-62-0 | ErC50 | 184,6 mg/l | algae | 72 h |

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| Name of substance | CAS No | Endpoint | Value | Species | Exposure time |
|-------------------|------------|----------|-------------|---------|---------------|
| Calcium chloride | 10043-52-4 | LC50 | 4.630 mg/l | fish | 96 h |
| Calcium chloride | 10043-52-4 | EC50 | 2.900 mg/l | algae | 72 h |
| Calcium chloride | 10043-52-4 | ErC50 | >4.000 mg/l | algae | 72 h |

Aquatic toxicity (chronic)

May cause long-term adverse effects in the aquatic environment.

Aquatic toxicity (chronic) of components of the mixture

| Name of substance | CAS No | Endpoint | Value | Species | Exposure time |
|-------------------|------------|----------|------------|-----------------------|---------------|
| Calcium hydroxide | 1305-62-0 | LC50 | 53,1 mg/l | aquatic invertebrates | 14 d |
| Calcium hydroxide | 1305-62-0 | EC50 | 300,4 mg/l | microorganisms | 3 h |
| Calcium chloride | 10043-52-4 | EC50 | 610 mg/l | aquatic invertebrates | 21 d |
| Calcium chloride | 10043-52-4 | LC50 | 920 mg/l | aquatic invertebrates | 21 d |

2. Process of degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

3. Bioaccumulative potential

Data are not available.

4. Mobility in soil

Data are not available.

5. Results of PBT and vPvB assessment

Data are not available.

6. Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

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Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.




2. Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

3. Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

SECTION 14: Transport information

| | | |
|----|---|--|
| 1. | UN number | 1748 |
| 2. | UN proper shipping name | CALCIUM HYPOCHLORITE, DRY |
| | Hazardous ingredients | Calcium hypochlorite ..% Cl active |
| 3. | Transport hazard class(es) |  |
| | Class | 5.1 (oxidizing substances) |
| 4. | Packing group | II(substance presenting medium danger) |
| 5. | Environmental hazards | hazardous to the aquatic environment (calcium hypochlorite...% Cl active) |
| 6. | Special precautions for user | |
| | Provisions for dangerous goods (ADR) should be complied within the premises. | |
| 7. | Transport in bulk according to Annex II of MARPOL and the IBC Code | |
| | The cargo is not intended to be carried in bulk. | |
| 8. | Information for each of the UN Model Regulations | |
| | • Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) | |
| | UN number | 1748 |
| | Proper shipping name | CALCIUM HYPOCHLORITE, DRY |
| | Particulars in the transport document | UN1748, CALCIUM HYPOCHLORITE, DRY, 5.1, II, (E), environmentally hazardous |
| | Class | 5.1 |
| | Classification code | O2 |
| | Packing group | II |
| | Danger label(s) | 5.1 + "fish and tree" |
| |   | |
| | Environmental hazards | yes (hazardous to the aquatic environment) |

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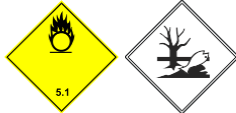
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| | |
|-------------------------------|-----------|
| Special provisions (SP) | 314 |
| Excepted quantities (EQ) | E2 |
| Limited quantities (LQ) | 1 kg |
| Transport category (TC) | 2 |
| Tunnel restriction code (TRC) | E |
| Hazard identification No | 50 |
| Emergency Action Code | 1W |

• International Maritime Dangerous Goods Code (IMDG)

| | |
|--|--|
| UN number | 1748 |
| Proper shipping name | CALCIUM HYPOCHLORITE, DRY |
| Particulars in the shipper's declaration | UN1748, CALCIUM HYPOCHLORITE, DRY, 5.1, II, MARINE POLLUTANT |
| Class | 5.1 |
| Marine pollutant | yes (P) (hazardous to the aquatic environment) |
| Packing group | II |
| Danger label(s) | 5.1 + "fish and tree" |



| | |
|--------------------------|-------------------|
| Special provisions (SP) | 314 |
| Excepted quantities (EQ) | E2 |
| Limited quantities (LQ) | 1 kg |
| EmS | F-H, S-Q |
| Stowage category | D |
| Segregation group | 8 - Hypochlorites |

• International Civil Aviation Organization (ICAO-IATA/DGR)

| | |
|--|--|
| UN number | 1748 |
| Proper shipping name | Calcium hypochlorite, dry |
| Particulars in the shipper's declaration | UN1748, Calcium hypochlorite, dry, 5.1, II |
| Class | 5.1 |
| Environmental hazards | yes (hazardous to the aquatic environment) |
| Packing group | II |
| Danger label(s) | 5.1 |



| | |
|-------------------------|------|
| Special provisions (SP) | A138 |
|-------------------------|------|

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| | |
|--------------------------|--------|
| Excepted quantities (EQ) | E2 |
| Limited quantities (LQ) | 2,5 kg |

SECTION 15: Regulatory information

1. Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

• Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)

| Name acc. to inventory | Type of registration | Remarks | Category / subcategory | Use limitation | CN Code | HS code | HS code - mixtures containing substance |
|------------------------|----------------------|---------|------------------------|----------------|------------|---------|---|
| calcium chlorate | Annex I - part 1 | | p(1) | b | 2829 19 00 | | |
| calcium chlorate | Annex I - part 2 | | | | 2829 19 00 | | |

Legend

annex I - part 1 List of chemicals subject to export notification procedure

annex I - part 2 List of chemicals qualifying for PIC notification

b Use limitation: ban (for the sub-category or sub-categories concerned) according to Union legislation

p(1) Sub-category: p(1) - pesticide in the group of plant protection products

• Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)

None of the ingredients are listed.

• Regulation 850/2004/EC on persistent organic pollutants (POP)

None of the ingredients are listed.

• Restrictions according to REACH, Annex XVII

| Name of substance | CAS No | Wt% | Type of registration | Conditions of restriction | No |
|-----------------------------------|--------|-----|-------------------------|---------------------------|----|
| Calcium chloride | | 2 | 1907/2006/EC annex XVII | R3 | 3 |
| Calcium hydroxide | | 3 | 1907/2006/EC annex XVII | R3 | 3 |
| calcium hypochlorite...%Cl active | | 70 | 1907/2006/EC annex XVII | R3 | 3 |

Legend

R3

1. Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects,
- 2. Articles not complying with paragraph 1 shall not be placed on the market.

3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they:

- can be used as fuel in decorative oil lamps for supply to the general public, and,
- present an aspiration hazard and are labelled with R65 or H304,

4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN).

5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the mar-

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ket, that the following requirements are met:

(a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: 'Keep lamps filled with this liquid out of the reach of children'; and, by 1 December 2010, 'Just a sip of lamp oil - or even sucking the wick of lamps - may lead to life-threatening lung damage';
(b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: 'Just a sip of grill lighter may lead to life threatening lung damage';
(c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.

6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public.

7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.

• Restrictions according to REACH, Title VIII

None.

• List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

none of the ingredients are listed

• Seveso Directive

| 2012/18/EU (Seveso III) | | | | |
|-------------------------|---------------------------------------|---|-----|-------|
| No | Dangerous substance/hazard categories | Qualifying quantity (tonnes) for the application of lower and upper-tier requirements | | Notes |
| P8 | oxidising liquids and solids | 50 | 200 | 55) |

Notation

55) Oxidising liquids, category 1, 2 or 3, or oxidising solids, category 1, 2 or 3

• Directive 75/324/EEC relating to aerosol dispensers

Filling batch

Deco-Paint Directive (2004/42/EC)

| | |
|-------------|-------------|
| VOC content | 0% 0 g/l |
|-------------|-------------|

Directive on industrial emissions (VOCs, 2010/75/EU)

| | |
|---|-------|
| VOC content | 0 % |
| VOC content Water content was discounted | 0 g/l |

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

None of the ingredients are listed.

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

None of the ingredients are listed.

Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)

None of the ingredients are listed.

Regulation 98/2013/EU on the marketing and use of explosives precursors

none of the ingredients are listed

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Regulation 111/2005/EC laying down rules for the monitoring of trade between the Community and third countries in drug precursors

none of the ingredients are listed

National inventories

| Country | National inventories | Status |
|---------|----------------------|--------------------------------|
| AU | AICS | not all ingredients are listed |
| CA | DSL | not all ingredients are listed |
| CN | IECSC | not all ingredients are listed |
| EU | ECSI | all ingredients are listed |
| EU | REACH Reg. | not all ingredients are listed |
| JP | CSCL-ENCS | all ingredients are listed |
| KR | KECI | all ingredients are listed |
| MX | INSQ | all ingredients are listed |
| NZ | NZIoC | all ingredients are listed |
| PH | PICCS | all ingredients are listed |
| TR | CICR | not all ingredients are listed |
| TW | TCSI | all ingredients are listed |
| US | TSCA | not all ingredients are listed |

Legend

| | |
|------------|---|
| AICS | Australian Inventory of Chemical Substances |
| CICR | Chemical Inventory and Control Regulation |
| CSCL-ENCS | List of Existing and New Chemical Substances (CSCL-ENCS) |
| DSL | Domestic Substances List (DSL) |
| ECSI | EC Substance Inventory (EINECS, ELINCS, NLP) |
| IECSC | Inventory of Existing Chemical Substances Produced or Imported in China |
| INSQ | National Inventory of Chemical Substances |
| KECI | Korea Existing Chemicals Inventory |
| NZIoC | New Zealand Inventory of Chemicals |
| PICCS | Philippine Inventory of Chemicals and Chemical Substances |
| REACH Reg. | REACH registered substances |
| TCSI | Taiwan Chemical Substance Inventory |
| TSCA | Toxic Substance Control Act |

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

16.1 Indication of changes (revised safety datasheet)

| Section | Former entry (text/value) | Actual entry (text/value) | Safety-relevant |
|---------|--|--|-----------------|
| 1.1 | Registration number (REACH): not relevant (mixture) | Registration number (REACH): This information is not available. | yes |
| 2.1 | | Classification acc. to GHS: change in the listing (table) | yes |
| 2.1 | Remarks: For full text of Hazard- and EU Hazard-statements: see SECTION 16. | | yes |

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| Section | Former entry (text/value) | Actual entry (text/value) | Safety-relevant |
|---------|---|--|-----------------|
| 2.2 | | Pictograms: change in the listing (table) | yes |
| 2.2 | | Hazard statements: change in the listing (table) | yes |
| 2.2 | | Precautionary statements - prevention: change in the listing (table) | yes |
| 2.2 | | Precautionary statements - response: change in the listing (table) | yes |
| 2.2 | | Labelling of packages where the contents do not exceed 125ml: change in the listing (table) | yes |
| 3.2 | | Description of the mixture: change in the listing (table) | yes |
| 8.1 | | Occupational exposure limit values (Workplace Exposure Limits): change in the listing (table) | yes |
| 8.1 | | · relevant DNELs of components of the mixture: change in the listing (table) | yes |
| 8.1 | | · relevant PNECs of components of the mixture: change in the listing (table) | yes |
| 14.3 | Transport hazard class(es) | Transport hazard class(es): class 5.1 hazard - oxidizing substances | yes |
| 14.8 | Marine pollutant: yes (hazardous to the aquatic environment) | Marine pollutant: yes (P) (hazardous to the aquatic environment) | yes |
| 14.8 | | · International Civil Aviation Organization (ICAO-IATA/DGR) | yes |
| 14.8 | | UN number: 1748 | yes |
| 14.8 | | Proper shipping name: Calcium hypochlorite, dry | yes |
| 14.8 | | Particulars in the shipper's declaration: UN1748, Calcium hypochlorite, dry, 5.1, II | yes |
| 14.8 | | Class : 5.1 | yes |
| 14.8 | | Environmental hazards: yes (hazardous to the aquatic environment) | yes |
| 14.8 | | Packing group: II | yes |
| 14.8 | | Danger label(s): 5.1 | yes |
| 14.8 | | Danger label(s): change in the listing (table) | yes |
| 14.8 | | Special provisions (SP): A138 | yes |
| 14.8 | | Excepted quantities (EQ): E2 | yes |
| 14.8 | | Limited quantities (LQ): 2,5 kg | yes |

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Abbreviations and acronyms

| Abbr. | Descriptions of used abbreviations |
|-----------------|--|
| 2017/2398/ EU | Directive of the European Parliament and of the Council amending Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work |
| Acute Tox. | acute toxicity |
| ADN | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road) |
| Aquatic Acute | hazardous to the aquatic environment - acute hazard |
| Aquatic Chronic | hazardous to the aquatic environment - chronic hazard |
| ATE | Acute Toxicity Estimate |
| CAS | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances) |
| CLP | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures |
| CMR | Carcinogenic, Mutagenic or toxic for Reproduction |
| CN Code | Combined Nomenclature |
| DGR | Dangerous Goods Regulations (see IATA/DGR) |
| DMEL | Derived Minimal Effect Level |
| DNEL | Derived No-Effect Level |
| EC No | The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union) |
| EH40/2005 | EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/) |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| ELINCS | European List of Notified Chemical Substances |
| EmS | Emergency Schedule |
| Eye Dam. | seriously damaging to the eye |
| Eye Irrit. | irritant to the eye |
| GHS | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations |
| HS | Harmonized Commodity Description and Coding System (Harmonized System, drawn up by the World Customs Organisation) |
| IATA | International Air Transport Association |
| IATA/DGR | Dangerous Goods Regulations (DGR) for the air transport (IATA) |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods Code |
| index No | the Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 |
| IOELV | indicative occupational exposure limit value |
| MARPOL | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant") |
| M-factor | means a multiplying factor. It is applied to the concentration of a substance classified as hazardous to the aquatic environment acute category 1 or chronic category 1, and is used to derive by the summation method the classification of a mixture in which the substance is present |
| NLP | No-Longer Polymer |

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| Abbr. | Descriptions of used abbreviations |
|-------------|---|
| Ox. Sol. | oxidising solid |
| PBT | Persistent, Bioaccumulative and Toxic |
| PNEC | Predicted No-Effect Concentration |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| Skin Corr. | corrosive to skin |
| Skin Irrit. | irritant to skin |
| STEL | short-term exposure limit |
| STOT SE | specific target organ toxicity - single exposure |
| SVHC | Substance of Very High Concern |
| TWA | time-weighted average |
| VOC | Volatile Organic Compounds |
| vPvB | very Persistent and very Bioaccumulative |
| WEL | workplace exposure limit |

Key literature references and sources for data

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)
- Dangerous Goods Regulations (DGR) for the air transport (IATA)
- International Maritime Dangerous Goods Code (IMDG)

List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text |
|------|--|
| H272 | may intensify fire; oxidiser |
| H302 | harmful if swallowed |
| H314 | causes severe skin burns and eye damage |
| H315 | causes skin irritation |
| H318 | causes serious eye damage |
| H319 | causes serious eye irritation |
| H335 | may cause respiratory irritation |
| H400 | very toxic to aquatic life |
| H410 | very toxic to aquatic life with long lasting effects |

Disclaimer

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.