



Safety Data Sheet
CLOROCAL

Safety Data Sheet dated 6/9/2017, version 3

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

1.1. Product identifier

Identification of the substance:

Trade name: CLOROCAL
CAS number: 7778-54-3
EC number: 231-908-7
Index number: 017-012-00-7
REACH number: 01-2119487005-40

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

Identified use:

70%-Active granular calcium hypochlorite

Uses advised against:

Any other use different from the identified uses.

1.3. Details of the supplier of the safety data sheet

Company:
BARCHEMICALS SRL
VIA S.ALLENDE 14
CASTELNUOVO RANGONE (MO)
ITALY
PHONE. +39 059/536502
FAX. +39 059/536742
www.barchemicals.it

Competent person responsible for the safety data sheet:

barani.corrado@barchemicals.it

1.4. Emergency telephone number


Barani Dr.Corrado - MOBILE PHONE. +39 335/6109383


SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria n°1272/2008 (CLP)

 Danger, Ox. Sol. 2, May intensify fire oxidiser..

 Warning, Acute Tox. 4, Harmful if swallowed.

 Danger, Skin Corr. 1A, Causes severe skin burns and eye damage.

 Warning, Aquatic Acute 1, Very toxic to aquatic life.

EUH031 Contact with acids liberates toxic gas.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Safety Data Sheet
CLOROCAL

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:

P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves and eye/face protection.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
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.

Special Provisions:

EUH031 Contact with acids liberates toxic gas.

Contains

calcium hypochlorite

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

Identification of the substance:





Chemical characterization: calcium hypochlorite

Trade code: 210102011BIS

CAS number: 7778-54-3

EC number: 231-908-7

REACH number: 01-2119487005-40

Qty	Name	Ident. Number	Classification
>= 90%	calcium hypochlorite	Index 017-012-00-7 number: CAS: 7778-54-3 EC: 231-908-7 REACH No.: 01-2119487005-40	 2.14/2 Ox. Sol. 2 H272  3.1/4/Oral Acute Tox. 4 H302  3.2/1A Skin Corr. 1A H314  4.1/A1 Aquatic Acute 1 H400 EUH031

3.2. Mixtures

N.A.

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Remove contaminated clothing immediately and dispose off safely.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

In case of eyes contact:

Safety Data Sheet
CLOROCAL

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
Protect uninjured eye.

In case of Ingestion:

Rinse well your mouth

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

In case of breathing difficult, bring the injured person into the open air and store it in a comfortable position for breathing. Consult a physician.

If breathing is irregular or stopped, administer artificial respiration.

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

Cough

Gastrointestinal disorders

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

After contact with skin, wash immediately with plenty of soap and water.

In case of contact with eyes, rinse immediately for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed, rinse mouth and drink water. Consult a doctor as soon as possible.

In case of inhalation seek medical advice immediately and show the container or label.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Full jet water.

Water spray, heavy alcohol foam, dry chemical or carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Do not use dry chemical extinguishers containing ammonium base compounds.

5.2. Special hazards arising from the substance or mixture

In case of fire or overheating, a pressure increase will occur with the possibility of breaking the container. This material is highly toxic to aquatic life with long-term effects. Contaminated water with this material must be contained and must be prevented from accessing waterways, sewers or drains.

Do not inhale explosion and combustion gases.

Combustion of the product produces chlorine gas.

5.3. Advice for firefighters

Immediately isolate the area by removing all persons from the area of the accident in the event of a fire. No action shall be taken involving any personal risk or without proper training. Firefighters must wear protective equipment and self-contained breathing apparatus (SCBA) with a full-face mask on the working face at positive pressure. Fire extinguishers (including helmets, protective boots and gloves) conforming to European Standard EN469 will provide basic protection for chemical accidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate the surrounding areas.

Prevent entry of foreign and unprotected personnel.

Eliminate all free flames and possible sources of ignition.

Wear personal protection equipment.

Avoid breathing vapors or mists.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

See protective measures under point 7 and 8.

Safety Data Sheet
CLOROCAL

- 6.2. Environmental precautions
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
- 6.3. Methods and material for containment and cleaning up
Stop the escape if there is no risk. Move the containers from the spill area. Get closer to the source of overwhelming emission. Prevent spills in sewage systems, waterways, basements or restricted areas. Wash and convey the spilled amounts in a waste treatment plant.
Collect with the shovel and place in suitable containers for disposal. Avoid dust formation.
After cleaning each trace with water. Eliminate in compliance with the applicable standard.
Dispose of contaminated material in suitable containers and start waste disposal. After collection, rinse the area and materials with water by retrieving the water used and, if necessary, dispose of it in authorized plants.
- 6.4. Reference to other sections
See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities
Store at room temperature in a ventilated place, away from direct sunlight and away from heat sources.
Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.
Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.
Keep away from food, drink and feed.
Incompatible materials:
Keep away from acids.
Keep away from combustible materials.
Instructions as regards storage premises:
Cool and adequately ventilated.
- 7.3. Specific end use(s)
See section 1.2.

SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
No occupational exposure limit available
DNEL Exposure Limit Values
N.A.
PNEC Exposure Limit Values
N.A.
- 8.2. Exposure controls
Eye/face protection:
Eye glasses with side protection.EN166
Protection for skin:
Wear clothing that provide comprehensive protection to the skin, eg. cotton, rubber, PVC or viton.
Protection for hands:

Safety Data Sheet
CLOROCAL

Gloves resistant to chemicals. EN 374

Respiratory protection:
 Full face mask with a chlorine filter.
 Mesh with filter P2 (white), medium retention capacity, for irritating or harmful particles or aerosols (EN143).

Thermal Hazards:
 Not applicable (the product is handled at room temperature)

Environmental exposure controls:
 Do not allow the product to be absorbed from the soil or from entering waterways or sewers.
 Do not let product enter drains. Discharge into the environment must be avoided.

Appropriate engineering controls:
 Ensure adequate ventilation. Comply with the maximum concentration values in the workplace.
 Predict the presence of showers and eye wash fountains at the workplace.

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

Properties	Value	Method:	Notes:
Appearance and colour:	White grains	--	--
Odour:	Characteristic	--	--
Odour threshold:	Not Available	--	--
pH:	11.5	--	at 25 °C
Melting point / freezing point:	100 °C	--	--
Initial boiling point and boiling range:	N.A.	--	--
Flash point:	N.A.	--	--
Evaporation rate:	N.A.	--	--
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	N.A.	--	--
Vapour pressure:	Not Available	--	--
Vapour density:	Not Available	--	--
Relative density:	2.35 g/ml	--	at 20 °C
Solubility in water:	217 g/l	--	at 20 °C
Solubility in oil:	Not Available	--	--
Partition coefficient (n-octanol/water):	N.A.	--	--
Auto-ignition temperature:	Not Available	--	--
Decomposition temperature:	170 - 180 °C	--	--
Viscosity:	N.A.	--	--
Explosive properties:	Non Explosive Product	--	--
Oxidizing properties:	Compression Product	--	--

9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	N.A.	--	--
Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Substance Groups	N.A.	--	--

Safety Data Sheet
CLOROCAL

relevant properties			
---------------------	--	--	--

SECTION 10: Stability and reactivity

- 10.1. Reactivity
oxidising substance: it enhances combustion of other substances
May be corrosive to metals.
Stable under normal conditions.
- 10.2. Chemical stability
Stable under recommended storage and handling. Please refer to section 7 of the MSDS.
- 10.3. Possibility of hazardous reactions
Never mix this product with organic chlorine in the same container (Trichloro and Dichloro).
Explosion hazard: alcohol, ethanol, organic substances, methanol.
Intense reaction with: ammonium compounds, halogenated hydrocarbons, phenol, reducing agents, nitroderivatives, strong oxidants and flammable substances.
- 10.4. Conditions to avoid
Do not mix with acids. It can be produced toxic gases (chlorine).
- 10.5. Incompatible materials
organic substances.
Products containing nitrogen (ammonia, urea etc.)
Reducing agents.
- 10.6. Hazardous decomposition products
Oxygen.
Chlorine.

SECTION 11: Toxicological information

- 11.1. Information on toxicological effects
Toxicological information of the substance:
calcium hypochlorite - CAS: 7778-54-3
- a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 850 mg/kg - Duration: 1h
Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg - Duration: 1h
Test: LD50 - Route: Inhalation - Species: Rat = 1300 mg/l
- b) skin corrosion/irritation:
Route: Skin Positive
- c) serious eye damage/irritation:
Positive

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
b) skin corrosion/irritation;
c) serious eye damage/irritation;
d) respiratory or skin sensitisation;
e) germ cell mutagenicity;
f) carcinogenicity;
g) reproductive toxicity;
h) STOT-single exposure;
i) STOT-repeated exposure;
j) aspiration hazard.

SECTION 12: Ecological information

- 12.1. Toxicity
No information is available on the mixture as a whole. This is the information on ecotoxicological effects of the individual components.
Molto tossico per i pesci

Safety Data Sheet
CLOROCAL

calcium hypochlorite - CAS: 7778-54-3

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Bobwhite quail = 3474 mg/kg

Endpoint: LC50 - Species: Daphnia = 0.11 mg/l - Duration h: 48

Endpoint: LC50 - Species: Bluegill sunfish = 0.088 mg/l - Duration h: 96

Endpoint: LC50 - Species: Rainbow trout = 0.16 mg/l - Duration h: 96

calcium hypochlorite - CAS: 7778-54-3

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Bobwhite quail = 3474 mg/kg

Endpoint: LC50 - Species: Daphnia = 0.11 mg/l - Duration h: 48

Endpoint: LC50 - Species: Bluegill sunfish = 0.088 mg/l - Duration h: 96

Endpoint: LC50 - Species: Rainbow trout = 0.16 mg/l - Duration h: 96

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information



14.1. UN number

ADR-UN Number: 3487

IATA-UN Number: 3487

IMDG-UN Number: 3487

14.2. UN proper shipping name

ADR-Shipping Name: CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, CORROSIVE with not less than 5.5% but not more than 16% water

IATA-Shipping Name: CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, CORROSIVE with not less than 5.5% but not more than 16% water

IMDG-Shipping Name: CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, CORROSIVE with not less than 5.5% but not more than 16% water

14.3. Transport hazard class(es)

ADR-Class: 5.1

ADR - Hazard identification number: 58

IATA-Class: 5.1

Safety Data Sheet
CLOROCAL

IATA-Label:	5.1 + 8
IMDG-Class:	5.1
14.4. Packing group	
ADR-Packing Group:	II
IATA-Packing group:	II
IMDG-Packing group:	II
14.5. Environmental hazards	
ADR-Environmental Pollutant:	Yes
IMDG-Marine pollutant:	Marine Pollutant
14.6. Special precautions for user	
ADR-Subsidiary risks:	8
ADR-S.P.:	314 322
ADR-Transport category (Tunnel restriction code):	2 (E)
IATA-Passenger Aircraft:	558
IATA-Subsidiary risks:	8
IATA-Cargo Aircraft:	562
IATA-S.P.:	A136 A803
IATA-ERG:	5C
IMDG-EmS:	F-H , S-Q
IMDG-Subsidiary risks:	8
IMDG-Stowage and handling:	Category D SW1 SW11
IMDG-Segregation:	SG35 SG38 SG49 SG53 SG60
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	
N.A.	

SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
- Dir. 98/24/EC (Risks related to chemical agents at work)
 - Dir. 2000/39/EC (Occupational exposure limit values)
 - Regulation (EC) n. 1907/2006 (REACH)
 - Regulation (EC) n. 1272/2008 (CLP)
 - Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
 - Regulation (EU) 2015/830
 - Regulation (EU) n. 286/2011 (ATP 2 CLP)
 - Regulation (EU) n. 618/2012 (ATP 3 CLP)
 - Regulation (EU) n. 487/2013 (ATP 4 CLP)
 - Regulation (EU) n. 944/2013 (ATP 5 CLP)
 - Regulation (EU) n. 605/2014 (ATP 6 CLP)
 - Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

No restriction.

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

Safety Data Sheet
CLOROCAL

No Chemical Safety Assessment has been carried out for the substance.

SECTION 16: Other information

For professional use.

Full text of phrases referred to in Section 3:

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

EUH031 Contact with acids liberates toxic gas.

Hazard class and hazard category	Code	Description
Ox. Sol. 2	2.14/2	Oxidising solid, Category 2
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1A	3.2/1A	Skin corrosion, Category 1A
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,
Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van
Nostrand Reinold

Liability exclusion clause: The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

For professional use.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.

Safety Data Sheet
COLORCAL

PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.