

CALCIUM HYPOCHLORITE

GHS Safety Data Sheet

Version No:2.0

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

CALCIUM HYPOCHLORITE, DRY

OTHER NAMES

Cl₂-O₂.Ca, Ca-Cl₂-O₂, Ca-O₂-Cl₂, Ca(ClO)₂, "hypochlorous acid, calcium salt", "calcium chlorohydrochlorite", "calcium hypochloride", "calcium oxychloride", "bleaching powder", "B-K powder", Camporit, "Cal Hypo",

PROPER SHIPPING NAME

CALCIUM HYPOCHLORITE, DRY

CALCIUM HYPOCHLORITE MIXTURE, DRY

CALCIUM HYPOCHLORITE, DRY or CALCIUM HYPOCHLORITE MIXTURE, DRY

PRODUCT USE

Used as an algicide, fungicide, bactericide, disinfectant, steriliser, sanitiser and deodorant; an oxidising agent; and a bleaching agent.

It is also used in the refining of sugar.

WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material.

Material is mixed and used in accordance with manufacturers directions.

SUPPLIER

Company: S D FINE- CHEM LIMITED

Address:

315- 317, T.V. INDUSTRIAL ESTATE,

248, WORLI,

MUMBAI- 400030.INDIA.

technical@sdfine.com

Telephone: 91- 22- 24959898

Telephone: 91- 22- 24959899

Fax: 91- 22- 24937232

HAZARD RATINGS

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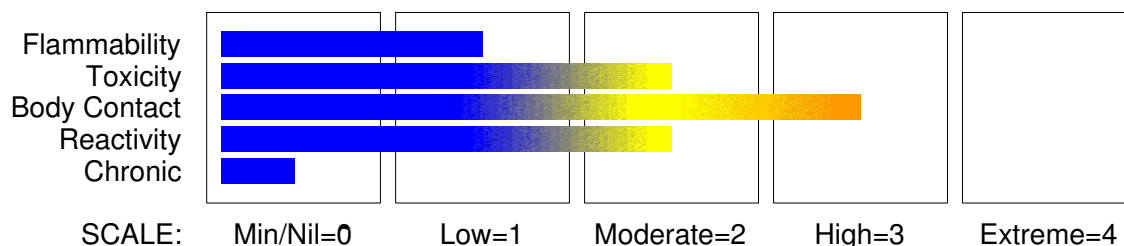
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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION



Section 2 - HAZARDS IDENTIFICATION

GHS Classification

Acute Aquatic Hazard Category 1
Acute Toxicity (Oral) Category 4
Oxidizing Solid Category 2
Skin Corrosion/Irritation Category 1C



EMERGENCY OVERVIEW

HAZARD

DANGER
Determined by using GHS criteria:
H273 H302 H314 H400
May intensify fire; oxidizer
Harmful if swallowed
Causes severe skin burns and eye damage
Very toxic to aquatic life

PRECAUTIONARY STATEMENTS

Prevention

Wash thoroughly after handling.
Take any precaution to avoid mixing with combustible or incompatible materials.
Do not eat, drink or smoke when using this product.
Wear protective gloves/clothing and eye/face protection.
Wash hands thoroughly after handling.
Do not breathe dust or mist.
Keep away from heat.

Response

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Wash contaminated clothing before reuse.

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Section 2 - HAZARDS IDENTIFICATION

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Specific treatment: refer to Label or MSDS.

If on skin or hair: remove/take off immediately all contaminated clothing. Rinse with water/shower.

Storage

Store away from combustibles and incompatible materials

Store locked up.

Disposal

Dispose of contents and container in accordance with relevant legislation.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
calcium hypochlorite, dry	7778-54-3	94 app.
may contain		
calcium hydroxide hypochlorite	12394-14-8	(< 6 ^
calcium chloride	10043-52-4	(^
calcium hydroxide	1305-62-0	(
(Available chlorine >39%)		
Decomposes when wet and gives off toxic chlorine	7782-50-5	

Section 4 - FIRST AID MEASURES

SWALLOWED

- For advice, contact a Poisons Information Centre or a doctor at once.
- Urgent hospital treatment is likely to be needed.
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Transport to hospital or doctor without delay.

EYE

If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

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Section 4 - FIRST AID MEASURES

SKIN

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

For acute or repeated exposures to hypochlorite solutions:

- Release of small amounts of hypochlorous acid and acid gases from the stomach following ingestion, is usually too low to cause damage but may be irritating to mucous membranes. Buffering with antacid may be helpful if discomfort is evident.
- Evaluate as potential caustic exposure.
- Decontaminate skin and eyes with copious saline irrigation. Check exposed eyes for corneal abrasions with fluorescein staining.
- Emesis or lavage and catharsis may be indicated for mild caustic exposure.
- Chlorine exposures require evaluation of acid/base and respiratory status.
- Inhalation of vapours or mists may result in pulmonary oedema.

ELLENHORN and BARCELOUX: Medical Toxicology.

Section 5 - FIRE FIGHTING MEASURES

FIRE FIGHTING

- May be violently or explosively reactive.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.
- Consider evacuation (or protect in place).

Alert Fire Brigade and tell them location and nature of hazard.

DO NOT approach containers suspected to be hot.

Cool fire exposed containers with water spray from a protected location.

Fight fire from a safe distance, with adequate cover.

FIRE/EXPLOSION HAZARD

Combustible . Combustible. Will burn if ignited.

Heating may cause expansion or decomposition leading to violent rupture of containers.

Personal Protective Equipment

Breathing apparatus.

Chemical splash suit.

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Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

Clean up all spills immediately. Remove all ignition sources.
Wear protective clothing, impervious gloves and safety glasses.
Avoid contact with skin and eyes.
Use dry clean up procedures and avoid generating dust.
Refer to major spills.

MAJOR SPILLS

Restrict access to area. Clear area of personnel and move upwind DO NOT touch the spill material.
Alert Fire Brigade and tell them location and nature of hazard.
May be violently or explosively reactive. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Consider evacuation.
Shut off all possible sources of ignition and increase ventilation.
Use dry clean up procedures and avoid generating dust.
Recover uncontaminated product in clean, dry containers
Cover remainder with a weak reducing agent to destroy available chlorine and mix with water.
Transfer sludge to suitable container and neutralise with soda ash.
Wash spill area with detergent, reducer and water.

EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:

calcium hypochlorite, dry 350 mg/m³

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:

calcium hypochlorite, dry 50 mg/m³

other than mild, transient adverse effects without perceiving a clearly defined odour is:

calcium hypochlorite, dry 10 mg/m³

The threshold concentration below which most people will experience no appreciable risk of health effects:

calcium hypochlorite, dry 10 mg/m³

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

Very Toxic (T+)	>= 0.1%	Toxic (T)	>= 3.0%
R50	>= 0.25%	Corrosive (C)	>= 5.0%
R51	>= 2.5%		
else	>= 10%		

where percentage is percentage of ingredient found in the mixture

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Section 6 - ACCIDENTAL RELEASE MEASURES

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



X X X X + 0

+: May be stored together

O: May be stored together with specific precautions

X: Must not be stored together

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

Use good occupational work practice. and WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material.

Avoid generating and breathing dust. Avoid contact with skin and eyes.

Avoid contact with incompatible materials.

Avoid all ignition sources. Avoid sources of heat.

Transport containers on a trolley.

Avoid physical damage to containers.

Handle and open container with care . Use in a well-ventilated area.

DO NOT return unused product to containers.

Always wash hands with soap and water after handling. Work clothes should be laundered separately.

SUITABLE CONTAINER

Packaging as recommended by manufacturer.

Plastic drum or Metal can or Metal drum.

· Check that containers are clearly labelled.

STORAGE INCOMPATIBILITY

Avoid storage with incompatible substances., strong acids, combustible materials.

Presence of rust (iron oxide) or other metal oxides catalyses decomposition.

STORAGE REQUIREMENTS

Store in a cool, dry place. Store in a well-ventilated area.

Store in a flame proof area.

Keep storage area free of debris, waste and combustibles.

Store away from incompatible materials.

No smoking, naked lights, heat or ignition sources.

Keep containers securely sealed.

Protect containers against physical damage.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

The following materials had no OELs on our records

• chlorine:

CAS:7782- 50- 5

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EMERGENCY EXPOSURE LIMITS

Material chlorine	Revised IDLH Value (mg/m3)	Revised IDLH Value (ppm) 10
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ODOUR SAFETY FACTOR (OSF)

OSF=1.6 (calcium hydroxide hypochlorite)

Exposed individuals are NOT reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class C, D or E.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm

Classification into classes follows:

Class	OSF	Description
A	550	Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV- TWA for example) is being reached, even when distracted by working activities
B	26- 550	As " A" for 50- 90% of persons being distracted
C	1- 26	As " A" for less than 50% of persons being distracted
D	0.18- 1	10- 50% of persons aware of being tested perceive by smell that the Exposure Standard is being reached
E	<0.18	As " D" for less than 10% of persons aware of being tested

MATERIAL DATA

No exposure limits set by NOHSC or ACGIH.

INGREDIENT DATA

CALCIUM HYDROXIDE:

In the absence of reports of adverse effects from exposure and the recognised lesser alkalinity of the alkaline earths compared with the the alkali hydroxides the relatively high value of TLV-TWA is recommended. This value corresponds in total alkalinity to 5 mg/m3 of sodium hydroxide or 2.5 times the TLV-TWA of sodium hydroxide.

CHLORINE:

Odour Threshold Value: 0.08 ppm (detection) - olfactory fatigue may develop

NOTE: Detector tubes for chlorine, measuring in excess of 0.2 ppm, are commercially available. Long-term measurements (8 hrs) may be conducted to detect concentrations exceeding 0.13 ppm.

Smell is not a good indicator of severity of exposure in the range 0.5 to 2 ppm. In this range subjects found exposure unpleasant with itching and burning of the throat reported and occasionally an urge to

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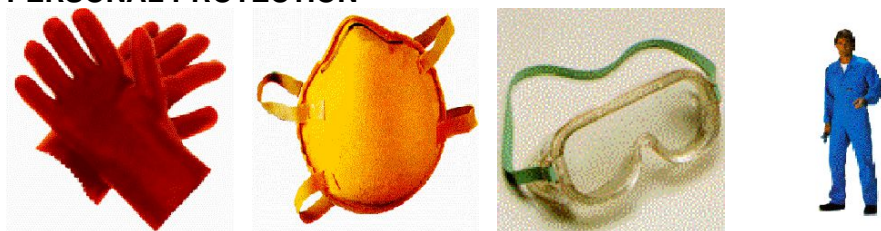
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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

cough. Significant differences in the responses of males and females were also recorded with females often reporting headache and drowsiness. Exposure at 1 ppm chlorine for 8 hours produced significant changes in pulmonary function and increased subjective irritation. Similar 8 hour exposures at 0.5 ppm produced no significant pulmonary function changes and less severe subjective irritation. Exposures for 2 hours at 2 ppm chlorine produced no significant changes in pulmonary irritation. An 8 hour exposure at 1.5 ppm produced increased mucous secretion from the nose and increased mucous in the hypopharynx. Exposure at or below the TLV-TWA and STEL is thought to protect the worker against annoying symptoms in nose, throat and conjunctiva and declines in pulmonary function.

PERSONAL PROTECTION



EYE

- Chemical goggles.
- Full face shield may be required for supplementary but never for primary protection of eyes
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET

Impervious, gauntlet length gloves or Elbow length PVC gloves.
Neoprene gloves.
Protective footwear or PVC boots.

OTHER

Cotton washable overalls buttoned to the neck and wrist and washable hat and PVC apron.
Ensure there is ready access to an emergency shower.

- Ensure that there is ready access to eye wash unit.
- Impervious protective clothing.

In case of emergency: • Full protective suit.

RESPIRATOR

Protection Factor	Half- Face Respirator	Full- Face Respirator	Powered Air Respirator
10 x ES	P1 Air- line*	- -	PAPR- P1 -
50 x ES	Air- line**	P2	PAPR- P2
100 x ES	-	P3	-

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

100+ x ES	-	Air- line*	-
		Air- line**	PAPR- P3

* - Negative pressure demand ** - Continuous flow.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.
For further information consult your Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

DO NOT handle directly. Wear gloves and use scoop / tongs / tools.
Use in a well-ventilated area.
Provide adequate ventilation in warehouse or closed storage areas.
If exposure to workplace dust is not controlled, respiratory protection is required; wear SAA approved dust respirator.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

White powder with a pungent chlorine odour; soluble in water.
Powerful oxidising agent; unstable to heat, friction or direct sunlight.
Wetting of solid material can cause heating and decomposition, giving off oxygen and highly toxic chlorine gas.

PHYSICAL PROPERTIES

Solid.
Mixes with water.

Molecular Weight: 142.98
Melting Range (°C): 100 decomposes
Solubility in water (g/L): Miscible
pH (1% solution): 11.5 @ 5%
Volatile Component (%vol): Nil @ 38 C.
Relative Vapour Density (air=1): Not applicable.
Lower Explosive Limit (%): Not available
Autoignition Temp (°C): Not applicable
State: Divided solid

Boiling Range (°C): Not applicable.
Specific Gravity (water=1): 2.35
pH (as supplied): Not applicable
Vapour Pressure (kPa): Not applicable
Evaporation Rate: Non Volatile
Flash Point (°C): Non flammable
Upper Explosive Limit (%): Not available.
Decomposition Temp (°C): 100

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

Presence of incompatible materials . Storage in unsealed containers.
Presence of heat source and direct sunlight.
Presence of elevated temperatures. Presence of water.

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Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.

The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion.

Considered an unlikely route of entry in commercial/industrial environments.

EYE

The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating.

When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation.

SKIN

The material can produce chemical burns following direct contact with the skin.

INHALED

Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system in a substantial number of individuals following inhalation.

Exposure to high concentrations causes bronchitis and is characterised by the onset of haemorrhagic pulmonary oedema.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are usually by skin contact with the material, material in solution and inhalation of generated dust.

Hypochlorite in pool water at concentrations of 1 ppm chlorine or less is non irritating to eyes if the pH is higher than 7.2 (slightly alkaline). At lower pH, a sensation of stinging, smarting of eyes with transient reddening may occur but generally no injury. Ingestion irritates the mouth, throat, and stomach. The hypochlorous acid liberated in the stomach can cause wall perforation, toxemia, haemorrhage and death.

As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

with the

TOXICITY AND IRRITATION

TOXICITY

Oral (rat) LD50: 850 mg/kg

IRRITATION

Nil Reported

CALCIUM HYDROXIDE:

TOXICITY

Oral (rat) LD50: 7340 mg/kg

IRRITATION

Eye (rabbit): 10 mg - SEVERE

CHLORINE:

TOXICITY

IRRITATION

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Section 11 - TOXICOLOGICAL INFORMATION

Inhalation (human) LCLo: 500 ppm/5 minutes

Inhalation (rat) LC50: 293 ppm/1 hour

Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production.

Section 12 - ECOLOGICAL INFORMATION

The material is classified as an ecotoxin* because the Fish LC50 (96 hours) is less than or equal to 0.1 mg/l

* Classification of Substances as Ecotoxic (Dangerous to the Environment)

Appendix 8, Table 1

Compiler's Guide for the Preparation of International Chemical Safety Cards: 1993

Commission of the European Communities.

The material is classified as an ecotoxin* because the Daphnia EC50 (48 hours) is less than or equal to 0.1 mg/l

* Classification of Substances as Ecotoxic (Dangerous to the Environment)

Appendix 8, Table 1

Compiler's Guide for the Preparation of International Chemical Safety Cards: 1993

Commission of the European Communities.

DO NOT discharge into sewer or waterways.

Refer to data for ingredients, which follows:

CALCIUM HYDROXIDE:

Fish LC50 (96hr.) (mg/l): 160

CHLORINE:

Hazardous Air Pollutant: Yes

Fish LC50 (96hr.) (mg/l): 0.44

Daphnia magna EC50 (48hr.) (mg/l): 0.49 (96hr)

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

DO NOT discharge into sewer or waterways.

Following release of ozone-depleting substances into the atmosphere, they eventually enter the troposphere where they persist undegraded. Subsequently they diffuse into the stratosphere and degrade slowly. In the stratosphere, these substances react slowly with

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Section 12 - ECOLOGICAL INFORMATION

oxygen free radicals and release halogen atoms which catalytically destroy ozone, producing irreversible damage. Use of these substances has been restricted by the Montreal Protocol on Substances that Deplete the Ozone Layer (1988) and also by US EPA Regulation 3093/94. Ozone depleters do not degrade readily in the ambient atmosphere; some have a half-life of more than 100 years for the photochemical reaction producing hydroxy radicals.

The material is classified as an ecotoxin* because the Fish LC50 (96 hours) is less than or equal to 0.1 mg/l

* Classification of Substances as Ecotoxic (Dangerous to the Environment)

Appendix 8, Table 1

Compiler's Guide for the Preparation of International Chemical Safety Cards: 1993

Commission of the European Communities.

Toxicity Fish: LC50(96)0.015-13.5mg/L

processes Abiotic: photodecomp

Section 13 - DISPOSAL CONSIDERATIONS

Recycle wherever possible. Consult manufacturer for recycling options.

Consult State Land Waste Management Authority for disposal.

Dissolve, neutralize and decant as liquid.

Aqueous solutions of calcium hypochlorite may be neutralized with sodium sulphite, sodium bisulfate or dilute hydrogen peroxide. DO NOT use acids as chlorine gas will be liberated. Only after there is no residual chlorine, neutralize the resulting solution with dilute hydrochloric or sulphuric acid.

Discharge neutral liquid to sewer, diluted with water.

Bury residue in an authorized landfill.

Return empty containers to supplier or bury empty containers at an authorized landfill.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: OXIDIZING AGENT

HAZCHEM: 2WE

UNDG:

Dangerous Goods Class: 5.1

Subrisk:

None

UN Number: 1748

Packing Group:

II

Shipping Name: CALCIUM HYPOCHLORITE, DRY

CALCIUM HYPOCHLORITE MIXTURE, DRY

CALCIUM HYPOCHLORITE, DRY with more than 39% available chlorine (8.8% available oxygen)

CALCIUM HYPOCHLORITE MIXTURE, DRY with more than 39% available chlorine (8.8% available oxygen)

CALCIUM HYPOCHLORITE, DRY or CALCIUM HYPOCHLORITE MIXTURE, DRY with

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Section 14 - TRANSPORTATION INFORMATION

more than 39% available chlorine (8.8% available oxygen)

Air Transport IATA:

ICAO/IATA Class:	5.1	ICAO/IATA Subrisk:	None
UN/ID Number:	1748	Packing Group:	II
ERG Code:	5L		

Shipping name:CALCIUM HYPOCHLORITE, DRY
CALCIUM HYPOCHLORITE MIXTURE, DRY
CALCIUM HYPOCHLORITE, DRY or CALCIUM HYPOCHLORITE MIXTURE,
DRY

Maritime Transport IMDG:

IMDG Class:	5.1	IMDG Subrisk:	None
UN Number:	1748	Packing Group:	II
EMS Number:	F- H, S- Q		

Shipping name:CALCIUM HYPOCHLORITE, DRY
CALCIUM HYPOCHLORITE MIXTURE, DRY
CALCIUM HYPOCHLORITE, DRY or CALCIUM HYPOCHLORITE MIXTURE,
DRY

Section 15 - REGULATORY INFORMATION

REGULATIONS

calcium hypochlorite, dry (CAS: 7778-54-3) is found on the following regulatory lists;
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk
International Agency for Research on Cancer (IARC) Carcinogens
International Council of Chemical Associations (ICCA) - High Production Volume List
OECD Representative List of High Production Volume (HPV) Chemicals

No data available for calcium hypochlorite, dry as CAS: 8031-48-9, CAS: 129904-51-4, CAS: 104381-95-5, CAS: 56172-56-6, CAS: 1332-17-8.

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
calcium hypochlorite, dry	7778- 54- 3, 8031- 48 - 9, 129904- 51- 4, 104381- 95- 5, 56172- 56- 6, 1332- 17- 8
calcium chloride	10043- 52- 4, 139468 - 93- 2
calcium hydroxide	1305- 62- 0, 1332- 69 - 0

The above information is believed to be accurate and represent the best information currently available to us, but does not represent any warranty expressed or implied of the properties of the product. User should make their own investigation to

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Section 16 - OTHER INFORMATION

determine the suitability of the information for their particular purpose.

Issue Date: 7-Apr-2018