



SAFETY DATA SHEET

PRODUCT NAME: FARM TREAT CAL-HYPO KLEEN GRANULAR

Issue Date: August 22

IDENTIFICATION

Product Name: Farm Treat Cal-Hypo Kleen Granular
Other Names: Hypochlorous Acid, Calcium Hypochlorite, Calcium Salt, Chlorinated Lime.
Product Code: FT-CHK-G-10, FT-CHK-G-20, FT-CHK-G-45
Uses: Water treatment, bleaching agent, bactericide, algaecide.
Supplier: HamChem Hamilton Chemicals Ltd, 75 Ruffell Rd, Hamilton
Phone: 07 974 4971 Web: www.hamchem.nz Email: info@hamchem.nz

- In emergency dial 111, and then ask for Fire, Ambulance or Police as necessary.
- In case of poisoning phone National Poisons Centre – 0800 764 766

HAZARD IDENTIFICATION



GHS Classifications

Oxidising Solid – Category 2
Corrosive to Metals – Category 1
Acute Toxicity (Oral) – Category 4
Skin Corrosion – Category 1B
Serious Eye Damage – Category 1
Hazardous to the Aquatic Environment (Acute & Chronic) – Category 1

Signal Word: DANGER

Hazard Statements

H272 – May intensify fire, oxidizer
H302 – Harmful if swallowed
H290 – May be corrosive to metals
H314 – Causes severe skin burns and eye damage
H318 – Causes serious eye damage
H410 – Very toxic to aquatic life with long lasting effects

Prevention

P210 – Keep away from heat, sparks, open flames or hot surfaces. No smoking.
P220 – Keep away from clothing and other combustible materials
P234 – Keep only in original packaging
P260 – Do not breathe dust
P264 – Wash hands thoroughly after handling
P270 – Do not eat, drink or smoke when using this product
P273 – Avoid release to the environment
P280 – Wear protective gloves/clothing and eye/face protection

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PRODUCT NAME: FARM TREAT CAL-HYPO KLEEN GRANULAR**Response**

P390 – Absorb spillage to prevent material damage

P391 – Collect spillage

P301 + P330 + P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTRE or Doctor if you feel unwell

P303 + P361 + P353 – IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water (or shower)

P363 – Wash contaminated clothing before reuse

P304 + P340 – IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

P310 – Immediately call a POISON CENTRE or Doctor

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

P310 – Immediately call a POISON CENTRE or Doctor

P370 + P378 – In case of fire: use flooding quantities of water to extinguish

Storage

P405 – Store locked up

P406 – Store in corrosive resistant container with inner liner

Disposal

P501 – Dispose of according to local regulations or authorities

COMPOSITION & INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportion (%)
Calcium Hypochlorite	7778-54-3	≥70 (as available chlorine)
Water	7732-18-5	12.5 ± 2%
Sodium Chloride	7647-14-5	} <20
Calcium Chlorate	10137-74-3	
Calcium Chloride	10043-52-4	
Calcium Hydroxide	1305-62-0	

FIRST AID MEASURES

If swallowed: Immediately drink large quantities of water. Do NOT induce vomiting. Call a POISON CENTRE or Doctor/Physician at once. Do NOT give anything by mouth if the person is unconscious or having convulsions.

If on skin: Immediately flush skin/hair with water for at least 15 minutes. Call a POISON CENTRE or Doctor/Physician. If clothing comes in contact with the product, it should be removed immediately and laundered before reuse.

If inhaled: Remove to fresh air and keep at a rest position comfortable for breathing. If breathing difficult, give oxygen. If not breathing, give artificial respiration. Seek immediate medical attention.

If in eyes: Immediately rinse eyes with water for at least 15 minutes lifting lower and upper eyelids occasionally. Remove contact lenses if present and easy to do so. Seek immediate medical attention.

SYMPTOMS AND EFFECTS, ACUTE AND DELAYED, FROM EXPOSURE

Ingestion: Corrosive. Swallowing can cause severe burns of the mouth, throat, and stomach. Can cause sore throat, vomiting and/or diarrhea.

Skin contact: Corrosive. Symptoms of redness, pain, and severe burn can occur.

Inhalation: Corrosive. Extremely destructive to tissues of the mucous membranes and upper respiratory tract. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath,

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headache, nausea and vomiting. Inhalation may be fatal as a result of spasm inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.

Eye contact: Corrosive. Contact can cause blurred vision, redness, pain and severe tissue burns.

Long term effects: Repeated exposures to calcium hypochlorite may cause bronchitis to develop with cough and/or shortness of breath.

FIRE FIGHTING MEASURES

Extinguishing media: Use flooding quantities of water as fog or spray. Use water spray to keep fire-exposed containers cool. Avoid direct contact with water; reacts with water releasing chlorine gas. Fight fire from protected location or maximum possible distance. Do not use dry chemical fire extinguishers containing ammonium compounds. Do not use carbon tetrachloride fire extinguishers. Do not allow water runoff to enter sewers or waterways.

Specific hazards: Sealed containers may rupture when heated. An explosion can occur if either a carbon tetrachloride or a dry ammonium compound fire extinguisher is used to extinguish a fire involving calcium hypochlorite. Sensitive to mechanical impact. Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Thermally unstable; at higher temperatures, may undergo accelerated decomposition with release of heat and oxygen.

Special protective precautions & equipment: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

ACCIDENTAL RELEASE MEASURES

Spill Mitigation Procedures: Hazardous concentrations in air may be found in local spill area and immediately downwind. Remove all sources of ignition. Stop source of spill as soon as possible and notify appropriate personnel.

Air Release: Vapours may be suppressed by the use of water fog. All water utilized to assist in fume suppression, decontamination or fire suppression may be contaminated and must be contained before disposal and/or treatment.

Water Release: This material is heavier than water. This material is soluble in water. Monitor all exit water for available chlorine and pH. Advise local authorities of any contaminated water release.

Land Spill: Danger: All spills of this product should be treated as contaminated. Contaminated product may initiate a chemical reaction which may spontaneously ignite all combustible material present, resulting in a fire of great intensity. In case of a spill, separate all spilled product from packaging, debris and other material. Using a clean broom or shovel, place all spilled product into plastic bags, and place those bags into a clean, dry disposal container, properly labelled and marked. Disposal containers made of plastic or metal are recommended. Do not seal disposal containers tightly. Immediately remove all product in disposal containers to an isolated area outdoors. Place all damaged packaging material in a disposal container of water to assure decontamination (i.e. removal of all product) before disposal. Place all undamaged packaging in a clean, dry container properly labelled and marked.

HANDLING & STORAGE

Handling advice: Use only in well ventilated areas. Minimise dust generation and accumulation. Do not get in eyes, on skin or on clothing. Label containers and keep containers tightly closed after use. Avoid contact with heat, sparks and flame. Avoid contact with clothing and other combustible materials. Do not ingest or inhale. Discard contaminated shoes. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse.

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Storage advice: Store only in original container. Store tightly closed containers in a clean, cool open or well-ventilated area. Keep out of sun, sparks and flame. The storage area should have a non – combustible, corrosion resistant floor and approved drainage. Protect containers from damage or breakage. Keep away from incompatible material. Avoid storage for prolonged periods. Regularly and carefully inspect containers for damage and corrosion. Only corrosion resistant equipment should be used in storage area.

Shelf-Life Limitations: Do not store product where the average daily temperature exceeds 35°C. Storage above this temperature may result in rapid decomposition, evolution of chlorine gas and heat sufficient to ignite combustible products. Shelf life (that is, the period of time before the product goes below label strength) is determined by storage time and temperatures. Store in a cool, dry and well-ventilated area. Prolonged storage at elevated temperatures will significantly shorten the shelf life. Storage in a climate-controlled storage area or building is recommended in those areas where extremes of high temperature occur.

Incompatible Materials for Storage: Do not allow product to come into contact with other materials, including e.g., other pool treatment products, acids, organic materials, nitrogen-containing compounds, dry powder fire extinguishers (containing mono-ammonium phosphate), oxidizers, all corrosive liquids, flammable or combustible materials, etc. A chemical reaction with such substances can cause a fire of great intensity.

EXPOSURE CONTROLS & PERSONAL PROTECTION
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Exposure standards: WorkSafe NZ has set the following Workplace Exposure Standards for the following substances: Calcium Hydroxide (1305-62-0) TWA 5mg/m³

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved): For conditions of use where exposure to the dust or mist is apparent, a half-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. A safety shower should be available in the immediate work area.

Eye Protection: Use chemical safety goggles and/or a full-face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Protective Clothing Type: Neoprene, Nitrile, Natural rubber (this includes: gloves, boots, apron, protective suit)

PHYSICAL & CHEMICAL PROPERTIES

Appearance:	White or grayish – white powder.
Odour:	Chlorine like odor.
Specific Gravity:	2.35 @ 20°C
Solubility in water:	Soluble in water; reacts, releasing chlorine gas.
Flash point:	N/A
Flammability limits:	N/A
Boiling point:	N/A
Melting point:	Decomposes above 100°C
pH:	10.4-10.8 (1% solution)

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STABILITY & REACTIVITY

Stability: Product is not sensitive to mechanical shock or impact. Product is not sensitive to electrical static discharge. Product is an oxidizer which can cause a severe increase in fire intensity. Not pyrophoric. Not an organic peroxide. If subjected to excessive temperatures, the product may undergo a rapid decomposition, evolution of chlorine gas, and heat sufficient to ignite combustible substances. If product is exposed to small amounts of water, it can react violently to product heat, toxic gases and spatter. Use copious amounts of water for fires involving this product.

Hazardous decomposition products: Calcium hypochlorite gives off oxygen, chlorine and chlorine monoxide.

Hazardous polymerization: Will not occur.

Incompatibles: Calcium hypochlorite is a strong oxidizer. Reacts with water and acids giving off chlorine gas. Forms explosive compounds with ammonia and amines. Incompatible with organic materials, nitrogen compounds and combustible materials.

Conditions to avoid: Heat, flame, moisture, dusting, sources of ignition and shock, and incompatibles.

TOXICOLOGICAL INFORMATION

Toxicity data: Calcium hypochlorite: LD₅₀ oral rat 850 mg/kg. LD₅₀ dermal rabbit >2,000 mg/kg. LC₅₀ inhalation 1h rat, 2.04mg/l

Acute Toxicity: This product is corrosive to all tissues contacted and upon inhalation, may cause irritation to the mucous membranes and respiratory tract. The dry material is irritating to the skin. However, when wet, it will produce burns to the skin.

Sub chronic/Chronic Toxicity: There are no known or reported effects from repeated exposure except those secondary to burns.

Reproductive and Developmental Toxicity: Calcium Hypochlorite has been tested for teratogenicity in laboratory animals. Results of this study have shown that Calcium Hypochlorite is not a teratogen.

Mutagenicity: Calcium Hypochlorite has been tested in the Dominant lethal assay in male mice, and it did not produce a dominant lethal response. Calcium Hypochlorite has been reported to produce mutagenic activity in two in vitro assays. It has, however, been shown to lack the capability to produce mutations in animals based on results from the micronucleus assay. In vitro assays frequently are inappropriate to judge the mutagenic potential of bactericidal chemicals due to a high degree of cellular toxicity. The concentration which produces mutations in these two in vitro assays is significantly greater than the concentrations used for disinfection. Based on high cellular toxicity in in vitro assays and the lack of mutagenicity in animals, the risk of genetic damage to humans is not judged significant.

Carcinogenicity: The product is not known or reported to be carcinogenic.

ECOLOGICAL INFORMATION

Eco toxicity: Very toxic to aquatic life with long lasting effects. Harmful to terrestrial vertebrates. Very toxic to the soil environment.

Ecological Toxicity Values for CALCIUM HYPOCHLORITE:

Bluegill (nominal, static) 96hr LC₅₀ 0.088 mg/l

Rainbow Trout (Salmo Gaidneri) (nominal, static) 96h LC₅₀ 0.16mg/l

Daphnia Magna (nominal, static) 48h LC₅₀ 0.11mg/l

Bobwhite quail, dietary LC₅₀ >5,000ppm

Mallard ducklings, dietary LC₅₀ >5,000ppm

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Bobwhite quail, oral LD50 3,474 mg/kg

Persistence & degradability: No information available

Bioaccumulative potential: No information available

Mobility in soil: No information available

DISPOSAL CONSIDERATIONS

Untreated waste calcium hypochlorite must never be discharged directly into sewers or surface water. Following decontamination, disposal of residue by secure landfill may be acceptable. Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved waste facility. Processing, use or contamination of this product may change the waste management options. Dispose of container and unused contents in accordance with National and local requirements.

TRANSPORT INFORMATION

UN Number: 2880
Proper Shipping name: Calcium Hypochlorite
Dangerous Goods Class: 5.1
Subsidiary Risk: None
Packing group: II
Hazchem Code: 2W

REGULATORY INFORMATION

HSNO Classifications: 5.1.1B, 8.1A, 6.1D, 8.2B, 8.3A, 9.1A

EPA Approval #: HSR001317

MPI Approved & Recognised for Farm Dairies

- See MPI Website for more information: <https://www.mpi.govt.nz/food-business/maintenance-cleaning-products-animal-product-processing/maintenance-compounds-used-dairy-processing/>

MPI Approved (Generic, 4.1.7) (All animal product except dairy) Processing Aids – Incidental Food Contact

- Chlorine level not to exceed 200ppm (C43)
- See MPI Guidance Document for more information: <https://www.mpi.govt.nz/dmsdocument/10721-approved-maintenance-compounds-manual-non-dairy>

OTHER INFORMATION

End of SDS.

