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TECHNICAL DATA SHEET

PRODUCT NAME:

CALCIUM HYPOCHLORITE 65%

CODE: LA2509

DESCRIPTION:

Calcium Hypochlorite is effective.

Calcium Hypochlorite is a dry, white, free-flowing, granular material. In solution with water, it is used as a general disinfectant to destroy bacteria, algae, fungi and other microorganisms through the process of chlorination. Chlorination is recognized and widely accepted as the standard method of disinfecting drinking water and as a sanitizer in a variety of food processing, commercial, institutional and domestic applications.

Calcium Hypochlorite is efficient.

Calcium Hypochlorite is efficient, easy to use and handle. Solutions can be prepared quickly for on the spot use from the economical drums and convenient pails and jugs provided. All calcium hypochlorite contains a minimum of 65% available chlorine and these products may be used for the applications described.

Calcium Hypochlorite is economical.

Calcium Hypochlorite does the job without waste and without the need for elaborate equipment. Stored in clean, dry, sealed containers, in a cool dry place it remains chemically stable and retains a high available chlorine content for a long period.

USES:

WATER SYSTEMS, GENERAL

Chlorination is the recognized and accepted method of treating water supplies throughout the world. Whether chlorination is achieved by a continuous feeding of gaseous chlorine into water or by the regular addition of granular calcium hypochlorite, the chlorinating, sanitizing action is the same. When added to water, both gaseous chlorine and granular calcium hypochlorite form hypochlorous acid. Hypochlorous acid thoroughly destroys microorganisms by penetrating their cell walls and attacking the exposed internal structure.

Although calcium hypochlorite serves municipalities and commercial users in many ways, its most important function is in water sanitization. In large cities with proportionately large water consumption requirements, chlorination is most often achieved through a continuous-feed gaseous chlorine system. In smaller communities where water consumption requirements do not justify the need for gaseous chlorine equipment, granular calcium hypochlorite is most often used:

To treat surface water supplies

Such as reservoirs, to destroy bacteria and algae, and to correct algae problems associated with water works equipment and filters.

To sanitize wells

Calcium hypochlorite may be used to sanitize wells initially and provide continuous treatment.

To sanitize new mains and equipment

All new water mains as well as new processing and distribution equipment for drinking water should be thoroughly sanitized with intensive treatments of calcium hypochlorite before use.

As emergency water supply treatment

Calcium hypochlorite is always ready to supply quick, effective chlorination of new or supplementary water supplies when fire, flood, drought or other emergencies disrupt or contaminate regular sources.

To treat sewage effluent

The use of calcium hypochlorite in conjunction with other environmentally sound practices to maintain clean rivers and streams has grown with our ecological awareness. Today, it is widely used to reduce Biological Oxygen Demand, control odors, and treat effluent and aid in sewage coagulation. All water intended for human consumption should be chlorinated. Although calcium hypochlorite can be used at any stage in water purification process, turbid water should be classified first. Large water systems using continuously fed gaseous chlorine, as well as smaller systems that use granular calcium hypochlorite as their primary treatment, often stock calcium hypochlorite for special purposes, such as destroying sudden algae growth, treatment of mains, conditioning of filters and for emergency chlorination.

IMPORTANT NOTE:

Calcium Hypochlorite is recommended rather than household bleaches and other commercial solutions containing weaker concentrations of Sodium Hypochlorite. The chlorine content in these solutions ranges from 3 to 15 percent, and due to the unstable nature of these compounds, the strength of the chlorine weakens so that at the time of use, they may not contain the labeled amount of chlorine available.

PREPARING CALCIUM HYPOCHLORITE SOLUTIONS:

Each of the applications described in this brochure requires a specific concentration of solution measured in part per million (ppm) or percent available chlorine. To prepare the proper strength solution, follow these simple directions:

1. Use a clean, **non-metallic** container that is free of grease, oil or residue.
2. Add granular calcium hypochlorite to lukewarm water.
3. Stir for three to five minutes.
4. Use immediately.

NOTE: As a safety precaution, prepare only the amount of solution needed. Never store a calcium hypochlorite solution.

CALCIUM HYPOCHLORITE MEASUREMENT EQUIVALENTS

DRY WEIGHT	HOUSEHOLD MEASUREMENT*
1/6 ounce	1 level teaspoon
1/2 ounce	1 level tablespoon
1 ounce	2 level tablespoons
8 ounces	16 level tablespoons (1 cup)

*These household measurement equivalents are only approximate values given for the user's convenience.

The following table indicates the amount of calcium hypochlorite needed to make various quantities of solution containing from 5 to 10,000 ppm available chlorine.

Available Chlorine (ppm)*	<u>Weight of Calcium Hypochlorite Required to Make Solution</u>							
	1 gallon		10 gallons		50 gallons		100 gallons	
	lbs.	oz.	lbs.	oz.	lbs.	oz.	lbs.	oz.
5	0	0.001	0	0.01	0	0.05	0	0.10
10	0	0.002	0	0.02	0	0.10	0	0.21
25	0	0.005	0	0.05	0	0.26	0	0.51
50	0	0.01	0	0.10	0	0.51	0	1.03
100	0	0.02	0	0.21	0	1.03	0	2.05
150	0	0.03	0	0.31	0	1.54	0	3.08
200	0	0.04	0	0.41	0	2.05	0	4.11
300	0	0.06	0	0.62	0	3.08	0	6.16
500	0	0.11	0	1.03	0	5.13	0	10.27
1,000	0	0.12	0	1.23	0	6.16	0	12.32
2,500 (.25%)	0	0.51	0	5.13	1	9.66	3	3.32
5,000 (.50%)	0	1.03	0	10.26	3	3.32	6	6.65
10,000 (1%)	0	2.05	1	4.53	6	6.65	12	13.29

*Parts available chlorine per million parts of water.

HOW TO SHOCK CHLORINATE YOUR WATER WELL

IRON BACTERIA SULPHATE-REDUCING BACTERIA

The growth of bacteria is a common problem in water wells. Although not a cause of health problems in humans, bacteria can be a nuisance to well production.

IRON BACTERIA are often found in wells completed in aquifers that have high iron content. IRON BACTERIA oxidize dissolved (ferrous) iron, forcing it to come out of solution. The oxidized (ferric) iron is deposited on the well casing screen. As IRON BACTERIA multiply, they produce a stringy, jelly-like slime. A combination of the iron deposit and bacteria build-up on casing perforations, screen slot openings and even in the pore spaces of the water bearing formation can severely reduce the yield of a well.

SULPHATE-REDUCING BACTERIA can be a problem in wells completed in aquifers that have a high content of naturally occurring sulphate. SULPHATE-REDUCING BACTERIA feed off of sulphate and produce hydrogen sulphide gas (H₂S), which is characterized by a “rotten egg” odour. H₂S gas corrodes