

# MATERIAL SAFETY DATA SHEET

## BLUE CRYSTAL® RESIDENTIAL DISINFECTING TABLETS

EMERGENCY TELEPHONE: (800) 424-9300

CHEMTREC #16012

DATE PREPARED: JANUARY 2010

### I. PRODUCT IDENTIFICATION

|                               |  |                       |  |
|-------------------------------|--|-----------------------|--|
| TRADE NAME                    | Blue Crystal®                              | IDENTIFICATION NUMBER | UN 2880  |
| CHEMICAL NAME                 | Calcium Hypochlorite,<br>Hydrated, Tablets | PACKING GROUP         | II   |
| CHEMICAL ABSTRACT SERVICE NO. | CAS #7778-54-3                             | REPORTABLE QUANTITY   | 10 pounds/4.5 Kg.                                      |
| CHEMICAL FAMILY               | Hypochlorite                               | HMSIS/NFPA RATING     | 3/0/1  |
| FORMULA                       | Ca (OCl) <sub>2</sub> • H <sub>2</sub> O   | I.M.O. DESCRIPTION    | Calcium Hypochlorite,<br>Hydrated, Class 5.1, UN 2880, |
| U.S. DOT SHIPPING NAME        | Calcium Hypochlorite, Hydrated             |                       | Packing Group II, IMDG                                 |
| U.S. DOT HAZARD CLASS         | 5.1 Oxidizer                               |                       | Code Page 5138   |

### II. INGREDIENTS

|   |     |  |     |
|---|-----|--|-----|
| CALCIUM HYPOCHLORITE (70% Available Chlorine) | 73% | INERT INGREDIENTS (Includes 5.5-10% Moisture and colorant) | 27% |
|---|-----|--|-----|

### III. PHYSICAL DATA

|                            |  |   |                         |
|----------------------------|--|---|-------------------------|
| BOILING POINT AT 760 mm Hg | Decomposes at 180° C                       | SOLUBILITY IN H <sub>2</sub> O; % BY WEIGHT | 217 g/l at 27° C        |
| SPECIFIC GRAVITY OF TABLET | 1.94 (H <sub>2</sub> O = 1)                | APPROXIMATE BULK DENSITY                    | 61 lbs./ft <sup>3</sup> |
| pH OF SOLUTION             | Alkaline                                   | HEAT OF SOLUTION                            | Slightly Exothermic     |
| APPEARANCE AND ODOR        | White with blue crystals and chlorine odor | VOLUME % VOLATILE                           | Not Applicable          |

### IV. FIRE AND EXPLOSION DATA

|                                  |  |
|----------------------------------|--|
| FLASH POINT                      | None   |
| EXTINGUISHING MEDIA              | Water Only - Smothering Ineffective  |
| SPECIAL FIRE FIGHTING PROCEDURES | NIOSH - Approved, positive pressure, self-contained breathing apparatus with full face piece for possible exposure to hazardous gas.                   |
| UNUSUAL FIRE & EXPLOSION HAZARD  | Decomposes rapidly at 180° C, generating oxygen and heat. Containers may rupture. (Do <u>NOT</u> use dry extinguishers containing ammonium compounds). |

### V. HEALTH HAZARD DATA

| ACUTE TOXICITY DATA (ANIMAL)  |  | CLASSIFICATION |              |
|-------------------------------|--|----------------|--------------|
| LC 50 INHALATION              | (Rat) No Mortality at 3.5 mg/l (1 hour)                        | INHALATION     | Irritating   |
| LD 50 ORAL                    | 850 mg/kg (Rat)  | SKIN           | Corrosive    |
| LD 50 DERMAL                  | (Rabbit) > 1000 mg/kg  | EYE            | Corrosive    |
| LC 50 AQUATIC                 | TLM 96 Hr.: 10-1 ppm   | INGESTION      | Toxic        |
| CAUSES BURNS TO EYES AND SKIN |  | AQUATIC        | Highly Toxic |
| CHRONIC TOXICITY              | There are no known or reported effects from repeated exposure. |                |              |

### VI. EFFECTS OF OVEREXPOSURE

|             |   |
|-------------|---|
| PERMISSIBLE | No permissible exposure limits have been established by OSHA.   |
| ACUTE       |   |
| INHALATION  | Inhalation of this material is irritating to the nose, mouth, throat, and lungs. It may also cause burns to the respiratory tract with the production of lung edema which can result in shortness of breath, wheezing, choking, chest pain, and impairment of lung function. Inhalation of high concentrations can result in permanent lung damage. Chronic (repeated) inhalation exposure may cause impairment of lung function and permanent lung damage. |
| EYE/SKIN    | Severe irritation and/or burns can occur following eye exposure. Contact may cause impairment of vision and corneal damage. Contact with skin may cause severe irritation, burns, or tissue destruction.  |
| INGESTION   | Irritation and/or burns can occur to the entire gastrointestinal tract, including the stomach and intestines, characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding, and/or tissue ulceration.  |
| CHRONIC     | There are no known or reported effects from chronic exposure.   |

### VII. EMERGENCY AND FIRST AID PROCEDURES

|              |  |
|--------------|--|
| INHALATION   | Remove to fresh air. Give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Seek medical attention immediately.   |
| EYE CONTACT  | Immediately flush with large amounts of water for fifteen (15) minutes, rinsing eye thoroughly. Get medical attention.   |
| SKIN CONTACT | Wash with plenty of soap and water for fifteen (15) minutes. Remove contaminated clothing and wash before reuse. If skin irritation occurs, get medical attention.   |
| INGESTION    | If <u>conscious</u> , drink a large quantity of water and common vegetable oil. Do <u>NOT</u> induce vomiting. Take immediately to hospital. Avoid alcohol. If <u>unconscious</u> , or in convulsions, seek medical attention immediately. Do not give anything by mouth to an unconscious person. |

### VIII. REACTIVITY DATA

|                                  |  |
|----------------------------------|--|
| STABILITY                        | Unstable.  |
| CONDITIONS TO AVOID              | Any form of contamination or excessive heat above 177° C.  |
| INCOMPATIBILITY                  | Acids, combustible materials, organics, reducing agents, flammables, beverages, compounds containing nitrogen, dry powder fire extinguishers (containing mono-ammonium phosphate). |
| HAZARDOUS DECOMPOSITION PRODUCTS | Acids or ammonia contamination will release toxic gas. Excessive heat may cause decomposition and release chlorine gas.  |

### IX. SPILL AND LEAK PROCEDURE

USE EXTREME CAUTION IN HANDLING SPILLED MATERIAL. CONTAMINATION WITH ORGANIC OR COMBUSTIBLE MATERIAL MAY CAUSE FIRE OR VIOLENT DECOMPOSITION. IF FIRE OR DECOMPOSITION OCCURS IN AREA OF SPILL, IMMEDIATELY DOUSE WITH PLENTY OF WATER. OTHERWISE, SWEEP UP ALL VISIBLE MATERIAL USING A CLEAN, DRY SHOVEL AND BROOM AND DISSOLVE MATERIAL IN WATER. CARE MUST BE TAKEN WHEN USING OR DISPOSING OF CHEMICAL MATERIALS TO PREVENT ENVIRONMENTAL CONTAMINATION. IT IS YOUR DUTY TO DISPOSE OF THE CHEMICAL MATERIALS AND/OR THEIR CONTAINERS IN ACCORDANCE WITH THE CLEAN AIR ACT, THE CLEAN WATER ACT AND RCRA REGULATIONS.

### X. SPECIAL PROTECTION INFORMATION

|                            |  |
|----------------------------|--|
| RESPIRATORY PROTECTION     | If conditions are dusty, use NIOSH respirator with acid gas cartridge and dust pre-filter.     |
| VENTILATION                | Not required unless dusty conditions are encountered. Store and use in a well-ventilated area. |
| EYE PROTECTION             | Chemical safety goggles.   |
| GLOVES                     | Natural or synthetic rubber.   |
| OTHER PROTECTIVE EQUIPMENT | Boots, aprons, or chemical suits as required to prevent skin contact.                          |

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