

#50424



For Reorder or Questions Call Toll-Free
 UTILITY SUPPLY OF AMERICA BlueBook
 1-800-548-1234

Date Prepared: Sept. 23, 1993

24 HOUR EMERGENCY ASSISTANCE:
 Spill - (304) 843-1300
 Transit - (800) 424-9300

BIO-SANITIZER® MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

TRADE NAME:	Bio-Sanitizer®
CHEMICAL NAME:	Calcium Hypochlorite, Hydrated
CHEMICAL ABSTRACT SERVICE NO.:	CAS #7778-54-3
CHEMICAL FAMILY:	Hypochlorite
FORMULA:	Ca (OCl) ₂ · H ₂ O
DOT SHIPPING NAME:	Calcium Hypochlorite, Hydrated
DOT HAZARD CLASS:	Oxidizer (5.1)
IDENTIFICATION NUMBER:	UN 2880
REPORTABLE QUANTITY:	10 pounds/4.5 Kg.
NFPA OXIDIZER RATING:	Class 3
I.M.O. DESCRIPTION:	Calcium Hypochlorite, Hydrated Class 5.1, UN 2880, RQ 10, IMDG Code Page 5138

II. INGREDIENTS

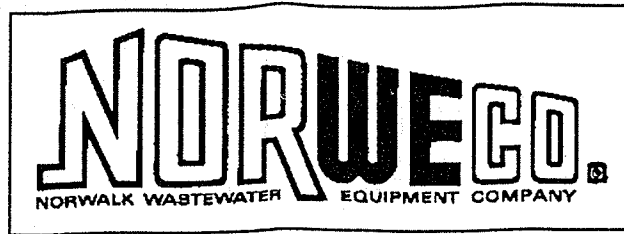
CALCIUM HYPOCHLORITE:	70% Available Chlorine
INERT INGREDIENTS:	30% (Includes 5.5-10% Moisture)

III. PHYSICAL DATA

BOILING POINT AT 760 MM HG:	Decomposes @ 180° C
FREEZING POINT/MELTING POINT:	Not Applicable
VAPOR PRESSURE:	Not Applicable
VAPOR DENSITY:	Not Applicable
EVAPORATION RATE:	Not Applicable
SOLUBILITY IN H ₂ O; % BY WEIGHT:	217 g/l @ 27° C
SPECIFIC GRAVITY OF TABLET: (H ₂ O = 1)	1.94
BULK DENSITY:	61 lbs./cu. ft. (approx.)
HEAT OF SOLUTION:	Slightly Exothermic
PH OF SOLUTION:	Alkaline
VOLUME % VOLATILE:	Not Applicable
APPEARANCE AND ODOR:	White tablets with chlorine odor

IV. FIRE AND EXPLOSION DATA

FLASH POINT:	None
FLAMMABLE LIMITS IN AIR: (PERCENT BY VOLUME)	Not Applicable
EXTINGUISHING MEDIA:	Water Only
SPECIAL FIRE FIGHTING PROCEDURES:	NIOSH/MSHA - Approved positive pressure self-contained breathing apparatus with full face piece.
UNUSUAL FIRE & EXPLOSION HAZARD:	Decomposes rapidly @ 180° C, generating oxygen and heat. Containers may rupture. (Do NOT use dry extinguishers containing ammonium compounds).



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V. HEALTH HAZARD DATA

ACUTE TOXICITY DATA (ANIMAL)

LC 50 INHALATION
LD 50 ORAL
LD 50 DERMAL
LC 50 AQUATIC
CAUSES BURNS TO EYES AND SKIN

(Rat) No Mortality @ 3.5 mg/l (1 hour)
800 mg/kg (Rat)
(Rabbit) > 1000 mg/kg
TLM 96 Hr.: 10-1 ppm

CLASSIFICATION

INHALATION
SKIN
SKIN/EYE
INGESTION
AQUATIC

Irritating
Slightly Toxic
Corrosive
Slightly Toxic
Highly Toxic

CHRONIC TOXICITY

There are no known or reported effects from repeated exposure.

VI. EFFECTS OF OVER-EXPOSURE

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.

There are no known or reported effects from chronic exposure.

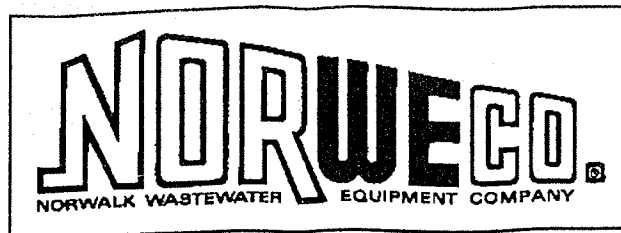
VII. EMERGENCY AND FIRST AID PROCEDURES

INHALATION -- Remove to fresh air. If not breathing, resuscitate and administer oxygen if readily available. Seek medical attention immediately.

EYE CONTACT -- Immediately flush with large amounts of water for fifteen minutes, rinsing eye thoroughly. Get medical attention.

SKIN CONTACT -- Wash with plenty of soap and water for fifteen (15) minutes. Remove contaminated clothing. If skin irritation occurs, get medical attention. Wash clothing before reuse.

INGESTION -- If conscious, drink a large quantity of water promptly. Do NOT induce vomiting. Call a physician immediately. Avoid alcohol. If unconscious, or in convulsions, seek medical attention immediately.



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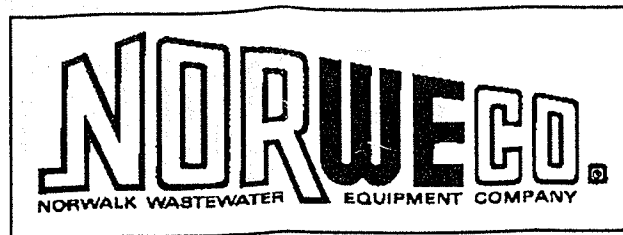
VIII. REACTIVITY DATA

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

IX. SPILL AND LEAK PROCEDURE

Use extreme caution in handling any spilled material. If there is NO danger of fire and the spill is dry and uncontaminated, follow the steps below. If there is any sign that a reaction has begun (bubbling, smoking, burning, hissing) evacuate the area and contact your fire department immediately for assistance.

1. Call emergency phone numbers as required.
2. Have all unnecessary personnel leave the immediate area.
3. Provide ventilation.
4. Mark off the area and make sure no foreign material enters it.
5. Obtain necessary protective clothing and equipment (See Section X).
6. Get clean, dry overpack drums and plastic bags for holding the spilled material and/or the leaking containers.
7. Get clean brooms and shovels for picking up the spilled material.
8. Be sure there is a clear, unobstructive route from the spill area to the outside of the building.
9. Place a plastic bag into the clean overpack and put the spilled material into the bag. Place the damaged container into the overpack drum. Do not put the spilled material (i.e. floor sweepings) back into the original drum.
10. After clean-up, tie the bag and place the drum lid on loosely.
11. Label the drum(s) properly and identify the contents.
12. Remove the drum(s) to an isolated area outside and keep from getting wet.
13. Follow manufacturer's instructions for disposal of the material.
14. Wash off and dry any brooms, shovels, or other equipment used in the clean-up.



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X. SPECIAL PROTECTION INFORMATION

<i>RESPIRATORY PROTECTION:</i>	If dusty conditions are encountered, use NIOSH/MSHA respirator with acid gas cartridge and dust pre-filter.
<i>VENTILATION:</i>	Not required unless dusty conditions are encountered.
<i>EYE PROTECTION:</i>	Chemical safety goggles.
<i>GLOVES:</i>	Rubber, neoprene, or PVC.
<i>OTHER PROTECTIVE EQUIPMENT:</i>	Boots, aprons, or chemical suits as required to prevent skin contact.

XI. SPECIAL PRECAUTIONS

1. Keep in original container.
2. Keep container closed when not in use.
3. Mix only with water.
4. Use clean, dry utensils.
5. Do not add this product to any dispensing device containing remnants of any other product. Fire or explosion will result. Do not mix with any other chemicals.
6. Wash hands after use.
7. **KEEP OUT OF THE REACH OF CHILDREN.**

XII. COMMENTS

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES, AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE, AND DISPOSAL FOR HAZARDOUS AND NON-HAZARDOUS WASTES.