

MATERIAL SAFETY DATA SHEET

CALCIUM HYPOCHLORITE GRANULES

SECTION I - IDENTIFICATION

MANUFACTURER'S NAME..... Haviland Consumer Products Incorporated
 ADDRESS (STREET,CITY,STATE,ZIP) 421 Ann St., N.W., Grand Rapids, MI 49504
 PHONE NUMBER..... (616) 361-6691
 EMERGENCY PHONE NUMBER..... CHEMTREC (800) 424-9300
 EFFECTIVE DATE..... 6/23/99
 TRADE NAME..... CALCIUM HYPOCHLORITE GRANULES
 CHEMICAL FAMILY..... Hypochlorite

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	OSHA/PEL	ACGIH/TLV (Units)	PROD. CAS #
Calcium Hypochlorite	Not Established	Not Established	7778-54-3

SECTION III - PHYSICAL DATA

BOILING POINT..... Decomposes at 180oC
 FREEZING POINT..... Not Established
 VAPOR PRESSURE (mm Hg)..... Not Applicable
 VAPOR DENSITY (Air=1)..... Not Applicable
 SOLUBILITY IN H2O..... 217 g/l at 27oC
 APPEARANCE/ODOR..... Off White, Free Flowing Granular; Chlorine Odor
 SPECIFIC GRAVITY (H2O=1)..... 2.35
 PH..... 1% Solution: 11

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT..... None
 LOWER EXPLOSIVE LIMIT (% by Volume) Not Applicable
 UPPER EXPLOSIVE LIMIT (% by Volume) Not Applicable
 EXTINGUISH MEDIA..... Water only. Smothering ineffective - product supplies own oxygen.
 SPECIAL FIRE FIGHTING PROCEDURES... Product decomposes at 180oC releasing oxygen gas. Container may rupture. Fire-fighters must wear NIOSH approved, pressure demand, self-contained breathing apparatus with full face piece for possible exposure to hazardous gases.

MATERIAL SAFETY DATA SHEET

CALCIUM HYPOCHLORITE GRANULES

UNUSUAL FIRE HAZARD..... May cause fire or explosion if mixed with other chemicals. Do not reuse containers. Residual material remaining in empty drum can react to cause fire.

SECTION V ~ HEALTH HAZARD DATA

CARCINOGENICITY..... None
NTP..... No
IARC..... No
OVER EXPOSURE EFFECTS..... Corrosivity to skin and eyes.
PRIMARY ROUTE(S) OF ENTRY..... Inhalation, Eye and Skin Contact
FIRST AID PROCEDURES..... If inhaled: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention. In case of contact: Immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Ingestion: Do not induce vomiting. Call a Physician Immediately.
EXPOSURE AGGRAVATED MEDICAL CONDITIONS None Currently Known

SECTION VI ~ REACTIVITY DATA

CHEMICAL STABILITY..... Unstable above 177oC.
CONDITIONS TO AVOID..... Avoid contamination. Excessive heat above 177oC.
INCOMPATIBLE MATERIALS..... Combustible materials. Organics. Reducing agents.
DECOMPOSITION PRODUCTS..... Acid or ammonia contamination will release toxic gases. Excessive heat will cause decomposition resulting in the release of oxygen and chlorine gas.
HAZARDOUS POLYMERIZATION..... Will Not Occur
POLYMERIZATION AVOID..... Not Applicable

SECTION VII - SPILL OR LEAK PROCEDURE

FOR SPILL Sweep up spilled material; do not re-package. Flush area with plenty of water.

MATERIAL SAFETY DATA SHEET

CALCIUM HYPOCHLORITE GRANULES

WASTE DISPOSAL METHOD..... Carefully neutralize dissolved material by adding hydrogen peroxide, then dilute with plenty of water and flush to sewer. Comply with all local, state and federal regulations.

SECTION VIII - SPECIAL PROTECTION

RESPIRATORY PROTECTION..... If dusty conditions are encountered, use NIOSH approved respirator with acid gas cartridge and dust prefilter.
VENTILATION..... None required unless dusty conditions are encountered.
PROTECTIVE GLOVES..... Natural or synthetic rubber.
EYE PROTECTION..... Chemical safety glasses.
OTHER PROTECTIVE EQUIPMENT.... A safety shower and eye bath should be available. For operations where spills or splashing may occur, use an impervious body covering and boots.
HANDLING AND STORAGE..... Store in a cool, dry, well-ventilated place. Keep in original container. Keep container closed when not in use. Keep away from sparks, flames, direct sunlight, and other sources of heat. Use only a clean, dry scoop made of metal or plastic each time product is taken from the container. Do not add this product to any dispensing device containing residue from other products. That may cause a violent reaction. Add this product only to water. Do not reuse container.

SECTION IX - SPECIAL PRECAUTIONS

HAZARD CLASS..... OXIDIZER, 5.1, PG II
DOT SHIPPING NAME..... CALCIUM HYPOCHLORITE, HYDRATED
UN NUMBER..... UN2880
REPORTABLE QUANTITY (RQ)..... 10 lbs.

REFERENCES ZZ1CALHY

4MIS H-3 F-0 R-1 (Oxidizer) EPA REG.# 57787-18