MATERIAL SAFETY DATA SHEET

CHLORINATING 1" TABS

==================================================================================================

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 .................... CHLORINATING 1" TABS
CHEMICAL FAMILY ................ Chlorinated Isocyanurates

==================================================================================================

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS

Trichloroisocyanuric Acid Not Established 3 mg/m3=1ppm 87-90-1
   for chlorine gas STEL

==================================================================================================

SECTION III - PHYSICAL DATA

FREEZING POINT .................. No Information Available
VAPOR PRESSURE (mm Hg) ........... No Information Available
VAPOR DENSITY (Air=1) ........... No Information Available
SOLUBILITY IN H2O ............... 12 g/liter at 25°C
APPEARANCE/ODOR ................. White powder; Slight Chlorine Odor
SPECIFIC GRAVITY (H2O=1) ........ No Information Available
PH .................. 1% Solution: 2.7 - 3.3

==================================================================================================

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT ..................... Will Not Burn
LOWER EXPLOSIVE LIMIT (% By Volume) Not Applicable
UPPER EXPLOSIVE LIMIT (% by Volume) Not Applicable
EXTINGUISH MEDIA ............... Water and CO2. Do not use powder based on ammonium salt and halogenous extinguishing media. Extinguish with large quantities of water (small amounts may aggravate situation). Product is not flammable, but may decompose at high temperatures, thus emitting toxic gases. If able, isolate unaffected drums by taking them to a well ventilated area to con sume. For small fires CO2 extinguishers can be used.

01/18/2000 -1-
MATERIAL SAFETY DATA SHEET
CHLORINATING 1" TABS

UNUSUAL FIRE HAZARD.............. Small quantities of water react with product's chlorinating composition to form hazardous quantities of nitrogen trichloride which is violently explosive. May give off toxic gases - Must use large amounts of water.

SECTION V - HEALTH HAZARD DATA
CARCINOGENICITY.............. None
NTP.......................... No
IARC.......................... No
OVER EXPOSURE EFFECTS....... Eventual ulceration to skin.
PRIMARY ROUTE(G) OF ENTRY... skin contact
FIRST AID PROCEDURES........ In case of eye contact: Flush immediately with plenty of water for at least 15 minutes and get medical attention; for skin, wash thoroughly with soap and water; wash contaminated clothing before reuse. If irritation persists, call a doctor. If inhaled: Remove to fresh air. If swallowed: Drink milk, water or raw egg whites. Get medical attention. Do not induce vomiting.

EXPOSURE AGGRAVATED MEDICAL CONDITIONS None Currently Known

SECTION VI - REACTIVITY DATA
CHEMICAL STABILITY........... Stable
CONDITIONS TO AVOID.......... Humidity and temperatures over 500C.
INCOMPATIBLE MATERIALS....... Product attacks metal in general. It reacts with water in small quantities, oxidant and reducing agents, acids, alkalis, nitrogen products, ammonium salts, urea, amines, quaternary ammonium derivatives, oils, fats, peroxides, ationic tensioactives, etc.

DECOMPOSITION PRODUCTS...... In combination with the above mentioned products, it decomposes and gives off a great quantity of heat, chlorine, nitrogen trichloride etc. with subsequent danger of explosion if nitrogen trichloride level is high enough.
HAZARDOUS POLYMERIZATION..... Will Not Occur
POLYMERIZATION AVOID........ Not Applicable

SECTION VII - SPILL OR LEAK PROCEDURE

01/18/2000
MATERIAL SAFETY DATA SHEET

CHLORINATING 1" TABS

FOR SPILL .................. Prevent product from reaching sewage or superficial waters. If product reaches a natural water-course, warn civil protection authorities. Sweep and fully collect spilled product. Can be re-used if not contaminated. Contaminated product must be destroyed.

WASTE DISPOSAL METHOD........ Use with sodium carbonate & sodium sulphite to neutralize. After dilute with alot of water and can be poured into sewer, according to local, federal and state regulations. Dry product mix with solvents and incinerate with wash for chlorine combustion gas.

SECTION VIII - SPECIAL PROTECTION

RESPIRATORY PROTECTION........ NIOSH approved full facepiece with airborne exposure limits are exceeded.

VENTILATION................. To maintain dusts below limits.

PROTECTIVE GLOVES.......... Rubber or other impervious materials.

EYE PROTECTION.............. Chemical splash proof goggles.

OTHER PROTECTIVE EQUIPMENT .... Suitable working clothes fully protecting the body. 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 ........ Do not produce dust. Handle far from other chemicals. Keep from ignition sources. Keep in closed container (not metallic or wooden) in a fresh, dry, ventilated place. If stored near other products, place near exit door for quick removal if necessary.

SECTION IX - SPECIAL PRECAUTIONS

HAZARD CLASS................ Oxidizer, 5.1, PG II

DOT SHIPPING NAME.......... Trichloroisocyanuric Acid, Dry, Mixture

UN NUMBER................... UN2468

REPORTABLE QUANTITY (RQ)...... Not Listed
MATERIAL SAFETY DATA SHEET

CHLORINATING 1" TABS

REFERENCES

WARNING!! STRONG OXIDIZING AGENT - USE DRY, CLEAN UTENSILS - KEEP AWAY FROM NATURALLY OCCURING ORGANIC MATERIALS.

ZZ1DRTAB

Product is toxic for fishes and algae. It may give off chlorine in contact with other products. Do not flush to waterways. EPA REG# 57787-12