

MATERIAL SAFETY DATA SHEET

SECTION I - MATERIAL NAME / IDENTIFIER

CHLORINE 3" SUPER TABLETS / SUPER STICKS **WHMIS:** Regulated (C, D2B)

MANUFACTURER'S NAME: CAPO INDUSTRIES LTD
STREET ADDRESS: 1200 CORPORATE DRIVE
CITY: BURLINGTON, ONTARIO
POSTAL CODE: L7L 5R6

EMERGENCY TELEPHONE: CANUTEC (613) 996-6666 (COLLECT)

CHEMICAL NAME: Trichloroisocyanuric Acid
CHEMICAL FAMILY: Isocyanurates
CHEMICAL FORMULA: C3 CL3 N3 O3
TRADE NAME & SYNONYMS: 1, 3, 5 Trichloroisocyanuric Acid
MOLECULAR WEIGHT: 232.44
MATERIAL USE: Pool or Spa Water Chlorination

SECTION II - HAZARDOUS INGREDIENTS

Hazardous Ingredients	Approx Conc %	C.A.S. N.A. U.N. Number	LD 50 Specify Species & Route (Oral, RAT)	LC 50 Specify Species & Route (Inhal, RAT)
Trichloroisocyanuric	60-100	87-90-1	406-750 mg/kg	Not available

SECTION III PHYSICAL DATA FOR MATERIAL

PHYSICAL STATE: GAS LIQUID SOLID X

ODOUR & APPEARANCE: White opaque tablets, chlorine odour

ODOUR THRESHOLD (PPM): Not available

SPECIFIC GRAVITY: Not applicable

VAPOUR PRESSURE (MM): Not applicable

VAPOUR DENSITY (AIR-1): Not applicable

EVAPORATION RATE: Not applicable

BOILING POINT (C): Decomposes 225 – 230 deg C

FREEZING POINT (C): Not applicable

SOLUBILITY IN WATER (20C): Soluble

% VOLATILE (BY VOLUME) Not applicable

PH: (1% solution) 2.7 – 3.3

COEFFICIENT OF WATER/OIL DISTRIBUTION: Not applicable

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SECTION IV - FIRE & EXPLOSION HAZARD OF MATERIAL

FLAMMABILITY:	YES X NO
IF YES, UNDER WHICH CONDITIONS?:	This material, if heated by an outside source to a temperature of 225-230 deg C, will undergo decomposition emitting heat and dense, noxious gases.
MEANS OF EXTINCTION:	Dry chemical or carbon dioxide
SPECIAL PROCEDURES:	Wear full protective clothing and self-contained breathing apparatus when fire fighting. Use water spray to cool fire exposed containers and to reduce vapours. Massive quantities of water may be used to dilute material involved in a fire or spilled from container.
FLASHPOINT (CELSIUS) AND METHOD:	Not applicable
AUTOIGNITION TEMPERATURE (CELSIUS):	Not applicable
LOWER EXPLOSION LIMIT (% BY VOLUME):	Not applicable
UPPER EXPLOSION LIMIT (% BY VOLUME):	Not applicable
HAZARDOUS COMBUSTION PRODUCTS:	Small quantities of H ₂ O will react with this material which will form NCL ₃ , which is violently explosive.

EXPLOSION DATA

SENSITIVITY TO MECHANICAL IMPACT: None **SENSITIVITY TO STATIC DISCHARGE:** None

SECTION V REACTIVITY DATA

CHEMICAL STABILITY:	YES NO X
IF NO, UNDER WHICH CONDITIONS?:	Stable when dry. Reacts non-violently with water to form a bleach solution.
INCOMPATIBILITY TO OTHER SUBSTANCES:	YES X NO
IF SO, WHICH ONES:	Avoid contact with water on concentrated forms of this material. Also avoid contact with easily oxidizable organic materials – ammonia, urea or similar nitrogen containing compounds, inorganic reducing compounds, calcium hypochlorite and alkalis. Also other isocyanurates.
REACTIVITY AND UNDER WHAT CONDITIONS:	Contamination can cause spontaneous combustion at room temperature.
HAZARDOUS DECOMPOSITION PRODUCTS:	Chlorine gas & traces of phosgene can be liberated at temperatures greater than 400 deg C.

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SECTION VI TOXICOLOGICAL PROPERTIES OF MATERIAL

ROUTE OF ENTRY:

: SKIN CONTACT	X	: SKIN ABSORPTION	: EYE CONTACT	X
: INHALATION ACUTE	X	: INHALATION CHRONIC	: INGESTION	X

EFFECTS OF ACUTE EXPOSURE TO MATERIAL

SKIN: Irritation and may cause burns.

EYE: Irritation and may cause burns.

INHALATION: Irritation or burns to mucous membranes and respiratory tract.

INGESTION: Irritation or burns to gastro intestinal tract.

EFFECTS OF CHRONIC EXPOSURE TO MATERIAL: None known

OTHER HEALTH EFFECTS: None known

LD 50 OF MATERIAL (Specify Species and Routes): See Section II

LC 50 OF MATERIAL (Specify Species and Routes): See Section II

EXPOSURE (LIMITS): Chlorine – TWAEW – 1 ppm, 3mg/m³, STEV – 3 ppm, 9mg/m³, Dust – TWAEW – 10 mg/m³

IRRITANCY OF MATERIAL: Strong irritant to skin, eye, nose and throat

SENSITIZATION OF MATERIAL: Not available

SYNERGISTIC MATERIALS: None known

CARCINOGENICITY, MUTAGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY: None known

SECTION VII PREVENTATIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT

GLOVES (Specify): Nitrile or neoprene gloves if skin contact is likely.

EYE (Specify): Safety goggles, glasses or face shield if eye contact is likely.

RESPIRATORY (Specify): Use NIOSH/MSHA approved dust or vapour mask when airborne exposure limits are exceeded. An approved respirator with an acid gas (for chlorine) and dust prefilter may be adequate.

OTHER (Specify): Clothing to prevent skin contact.

ENGINEERING CONTROLS (e.g. Ventilation, Enclosed Process – Specify): Use in well ventilated area.

LEAK AND SPILL PROCEDURE: If material is spilled, clean up as soon as possible to prevent contamination with a material with which it will react. Keep spilled material dry. Sweep up and place material in a dry, clean container.

WASTE DISPOSAL: Dispose of in accordance to all applicable federal, provincial and local laws and regulations.

HANDLING PROCEDURES AND EQUIPMENT: Avoid skin, eye and clothing contact. Use in well ventilated areas. Wash thoroughly with soap and water after handling.

STORAGE REQUIREMENTS: Store in cool, dry area. Do not allow water to get into container. Keep containers tightly closed when not in use.

SPECIAL SHIPPING INFORMATION:

Transportation:	Trichloroisocyanuric Acid - Dry
Class:	5.1
Pkg. Group:	II
P.I.N./UN:	2468 1KG 7 UNDER LTD. QTY

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SECTION VIII

FIRST AID MEASURES

- SKIN:** Wash thoroughly with soap and water.
- EYE:** Flush eyes with plenty of water for 15 minutes. Seek medical attention.
- INHALATION:** Remove person to fresh air. Contact a physician.
- INGESTION:** Drink 2 or 3 glasses of water followed with 10 ounces of milk of magnesia/water (50/50), or eat bread soaked in milk followed by olive oil or cooking oil. Contact a physician immediately.

SECTION IX

PREPARATION DATE OF M.S.D.S.

PREPARED BY (Group, Department, etc.): PLANT CHEMIST

TELEPHONE: (905) 332-6626

PREPARATION DATE: January 1, 1996
December 12, 2013

ADDITIONAL NOTES OR REFERENCES:

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