

MATERIAL SAFETY DATA SHEET / page 1

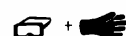
CHLORAT HF

HAZARD RATING
HAZARD CODE



4- SEVERE
3- SERIOUS
2- MODERATE
1- SLIGHT
0- MINIMAL

FIRE HAZARD (0)
HEALTH HAZARD (4)
REACTIVITY (2)
PERSONAL PROTECTION (R)



SECTION I: PRODUCT IDENTIFICATION

TRADE NAME AND SYNONYMS	CHEMICAL FORMULA	MATERIAL USE
CHLORAT HF	Proprietary	Foaming chlorinated alkaline cleaner

SECTION II: HAZARDOUS INGREDIENTS OF MATERIAL

HAZARDOUS INGREDIENTS	APPROXIMATE CONCENTRATION (%)	CAS. NA OR UN NUMBERS	LD ₅₀ (SPECIFY SPECIES & ROUTE)
Sodium Hydroxide	5-10 %	1310-73-2	500 mg/kg (Oral-Rabbit)
Sodium Hypochlorite	1-3 %	7681-52-9	8 mg/Kg >
The other ingredients are not hazardous.			

SECTION III: PHYSICAL DATA OF MATERIAL

PHYSICAL STATE		pH (1.0%)	ODOUR AND APPEARANCE		
Liquid		11.50±1.00	Chlorine- Clear Yellowish		
% VOLATILE (BY VOL.)	SPECIFIC GRAVITY		VAPOUR PRESSURE (MM)	VAPOUR DENSITY (AIR-1)	
N/AV	1.125±0.050		N/AV	N/AV	
EVAPORATION RATE	BOILING POINT (°C)		FREEZING POINT (°C)	SOLUBILITY IN WATER (20°C)	
N/AV	N/AV		N/AV	Complete	
N/A	=	Not Applicable	N/AV	=	Not Available

SECTION IV: FIRE AND EXPLOSION HAZARD

MEANS OF EXTINCTION Vaporised water, foam of carbon dioxide. HAZARDOUS COMBUSTION PRODUCTS CO, CO ₂ products of combustion. SPECIAL PROCEDURES N/A	FLAMMABILITY NO IF YES UNDER WHAT CONDITIONS? N/A FLASH POINT (°C) AND METHOD N/A UPPER EXPLOSION LIMIT (% BY VOLUME) N/A LOWER EXPLOSION LIMIT (% BY VOLUME) N/A
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Information contained in this literature is believed to be accurate and is offered in good faith for the benefit of the consumer. The company, however, cannot assume any liability or risk involved in the use of its chemical products since the conditions of use are beyond our control.



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SECTION V: REACTIVITY DATA		
CHEMICAL STABILITY YES IF NO, UNDER WHAT CONDITIONS? N/A INCOMPATIBILITY TO OTHER SUBSTANCES YES IF SO, WHICH ONES? Acids and Ammonia.		REACTIVITY AND UNDER WHAT CONDITIONS? When in contact with acids and ammonia. HAZARDOUS DECOMPOSITION PRODUCTS This product decomposes at high temperature to generate oxides of chlorine. CO, CO ₂ are also the products of decomposition.
SECTION VI: TOXICOLOGICAL PROPERTIES		
ROUTE OF ENTRY Skin contact Eye contact Ingestion EFFECTS OF ACUTE EXPOSURE TO MATERIAL SKIN : Causes severe irritation. EYES: Causes severe irritation. INGESTION : May causes irritation, abdominal pain, diarrhea.		EXPOSURE LIMITS N.A.V. CARCINOGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY, MUTAGENICITY None
SECTION VII: PREVENTIVE MESURES		
PERSONAL PROTECTIVE EQUIPMENT GLOVES (SPECIFY) Rubber EYES (SPECIFY) Safety goggles RESPIRATORY (SPECIFY) None OTHER (SPECIFY) None	ENGINEERING CONTROLS (E.G. VENTILATION, ENCLOSED PROCESS SPECIFY) N/A LEAKS AND SPILLS PROCEDURE Wash away with water. WASTE DISPOSAL Neutralize and then dispose according to local laws. HANDLING PROCEDURES AND EQUIPMENT N/A STORAGE REQUIREMENTS Steel or plastic. Store at 20°C to 30°C. Keep lid closed. SPECIAL SHIPPING INFORMATION Shipping temperature has to be between 20°C and 30°C.	
SECTION VIII: FIRST AID MEASURES		
SKIN: Flush skin with abundant water for 15 minutes. If irritation persists, seek medical attention. EYES: Flush eyes with abundant water for 15 minutes. If irritation persists, seek medical attention. INGESTION : Drink 3-4 glasses of water, do not induce vomiting. Consult physician.		
SECTION IX: EMERGENCY NUMBER		
PREPARED BY	PHONE NUMBER	DATE
Technical Department	Tel: 514-745-2597	March 25, 2005
SECTION X: W.H.M.I.S. Classe(s) : E		
SHIPPING : Corrosive liquids N.O.S. / Sodium hydroxide in solution Classe 8 (9.2) UN 1824 PG II		

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