BIOLOGIC CHEMICAL WORKS

MATERIAL SAFETY DATA SHEET

MFG.CODE # 09

SECTION I

MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.
BIOLOGIC CHEMICAL WORKS	248-941-0347

ADDRESS (Street, City, State and Zip Code)
P.O. BOX 82501 ROCHESTER, MI 48308

CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS
N/A	BIO ETCH
CHEMICAL FAMILY	**FORMULA**
N/A	N/A

SECTION II – HAZARDOUS INGREDIENTS

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES		%	TLV (UNITS)
Hydrochloric Acid	(CAS# 7647-01-0)	>1	5 ppm
Non-Ionic Surfactant	(CAS# 68131-40-8)	>1	N/A

This product contains 3.50 pounds of Hydrochloric Acid per gallon of product. Hydrochloric Acid is a regulated chemical under the Emergency Planning and Right-To-Know Act. You are required to file E.P.A. SARA reports once the threshold of 10,000 pounds of Hydrochloric Acid has been purchased for one location in each calendar year.

All components of this product are listed on the E.P.A./TSCA inventory of chemical substances.

SECTION III – PHYSICAL DATA

BOILING POINT °F	178	SPECIFIC GRAVITY (H2O = 1)	1.05
VAPOR PRESSURE (mm. Hg.)	25	PERCENT VOLATILE BY VOLUME (%)	99
VAPOR DENSITY (AIR = 1)	heavier	EVAPORATION RATE (water =1)	1
SOLUBILITY IN WATER	complete	PH	1

APPEARANCE AND ODOR
Clear blue-green liquid with spearmint fragrance.

SECTION IV – FIRE AND EXPLOSION DATA

FLASH POINT (Method Used)		FLAMMABLE LIMITS	Lel	Uel
None	T.O.C.		N/A	N/A

EXTINGUISHING MEDIA
Use media suitable for fighting surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES
Fire fighters should wear full protective clothing including self-contained respiratory equipment operated in a positive mode.

UNUSUAL FIRE AND EXPLOSION HAZARDS
This product is non-flammable, however, it will react with metals to produce Hydrogen, a flammable gas.

(Continued on reverse side)

SECTION V – HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
5 ppm

PRIMARY ROUTES OF ENTRY Inhalation X Skin Contact X Other (Specify)

EFFECTS OF OVEREXPOSURE
CORROSIVE MATERIAL- will cause irritation and chemical burns to the skin and mucous membranes and severe chemical burns to the eyes. Vapors are irritating to the respiratory tract.

EMERGENCY AND FIRST AID PROCEDURE
Eyes- flush with copious amounts of water lifting lids and removing contact lenses to ensure complete irrigation- get medical attention. Skin- flush with water and then wash with soap and water, launder contaminated clothing before reuse- get medical attention if irritation persists. Inhalation- remove to fresh air and assist breathing as necessary- get medical attention. Ingestion- DO NOT INDUCE VOMITING- give milk or water- get medical attention immediately.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
None Known

CARCINOGEN:	NTP	IARC	OTHER
No			

SECTION VI – REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		High temperatures and hot surfaces.
	STABLE	X	

INCOMPATIBILITY (Materials to avoid)
Reactive Metals, Strong Oxidizers, Bases

HAZARDOUS DECOMPOSITION PRODUCTS
Hydrogen, Hydrogen Chloride

HAZARDOUS POLYMERIZATION			CONDITIONS TO AVOID
	MAY OCCUR		None
	WILL NOT OCCUR	X	

SECTION VII – SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Ventilate area. Dike area to contain spill. Neutralize with Soda Ash or dilute Caustic Soda solution and flush to sewer in accordance with regulatory permit requirements. If possible clean area on a dry basis and then flush with water.

WASTE DISPOSAL METHOD
Dispose of spilled or waste product, contaminated soil and other contaminated material in a licensed landfill or treatment facility in accordance with all regulations.

SECTION VIII – SPECIAL PROTECTION INFORMATION

SPECIAL RESPIRATORY PROTECTION (Specify type)
Use NIOSH approved acid-gas respirator where TLV has been exceeded.

VENTILATION	LOCAL EXHAUST	SPECIAL
	To control TLV	N/A
	MECHANICAL (General)	OTHER
	To control TLV	N/A

PROTECTIVE GLOVES	EYE PROTECTION
Impervious	Chemical Goggles

OTHER PROTECTIVE EQUIPMENT
Impervious apron and boots, eyewash and safety shower.

SECTION IX – SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Avoid contact- wear protective clothing, especially for the eyes- contact lenses should not be worn when using, wash thoroughly after using. Avoid inhalation of vapors or spray mists- use approved respirator in areas where TLV has been exceeded. Do not take internally. Keep container closed when not in use.

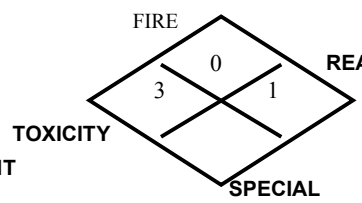
OTHER PRECAUTIONS
Keep Out of Reach of Children.

HMIS SYMBOL

HEALTH	3
FLAMMABILITY	0
REACTIVITY	1

HMIS		NFPA
SEVERE	4	EXTREME
SERIOUS	3	HIGH
MODERATE	2	MODERATE
SLIGHT	1	SLIGHT
MINIMAL	0	INSIGNIFICANT

NFPA SYMBOL



NAME	John Petoskey
SIGNATURE	
TITLE	CHEMIST
PREPARATION DATE	December 8, 2005
PHONE NUMBER	248-941-0347
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