## **BioLogic Chemical Works MATERIAL SAFETY DATA SHEET**

MFG.CODE # 183A

SECTION I					
MANUFACTURER'S NAME BioLogic Chemical Works	EMERGENCY TELEPHONE NO.				
<u> </u>	(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	BioLogic Floor Renew (PART A)				
CHEMICAL FAMILY	FORMULA				
N/A	N/A				

SECTION II – HAZARDOUS INGREDIENTS				
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES			TLV (UNITS)	
Bisphenol A/Epichlorohydrin Based Epoxy Resin	(CAS# 25068-38-6)	>1	N/A	
Multifunctional Acrylate Monomer	(CAS# 13048-33-4)	>1	N/A	

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

SECTION III – PHYSICAL DATA				
BOILING POINT °F	200+	SPECIFIC GRAVITY (H2O = 1)	1.13	
VAPOR PRESSURE (mm. Hg. @ 20°C)	0.09	PERCENT VOLATILE BY VOLUME (%)	0	
VAPOR DENSITY (AIR = 1)	heavier	EVAPORATION RATE ( =1) N-Butyl Acetate	slower	
SOLUBILITY IN WATER	negligible	PH	N/A	
APPEARANCE AND ODOR Clear to light amber viscous liquid wi	ith characteristic as	prulete odor		

| Clear to light amber viscous liquid with characteristic acrylate odor.

SECTION IV – FIRE AND EXPLOSION DATA					
FLASH POINT (Method Used)		FLAMMABLE LIMITS	Lel	Uel	
200 + 95	(Cataflash)		Not	Determined	
200+°F	(Setaflash)				

Water Fog, Dry Chemical, Foam, Carbon Dioxide

## SPECIAL FIRE FIGHTING PROCEDURES

Fire fighters should wear full protective clothing including self-contained respiratory equipment operated in a positive mode. Use water spray to keep containers cool.

### UNUSUAL FIRE AND EXPLOSION HAZARDS

High temperatures and fire conditions may cause rapid and uncontrolled polymerization which can result in explosions and the violent rupture of containers.

	SECTION	V – HEALTH H	AZARD DATA	
THRESHOLD LIMIT VALUE	PRIMARY ROUTES			X Other (Specify)
No OSHA/ACGIH limits have				
been established				
Eyes- moderately irritating. Skin-	moderate irritation	prolonged contact	may cause blister	es may eausa skin consitization
Inhalation- may cause respiratory to			may cause onsici	s, may cause skin sensitization.
EMERGENCY AND FIRST AID PROCED		illimitoli.		
				plete irrigation-get medical attention. Skin-
				et medical attention if irritation persists.
get medical attention.	sist breathing as ne	cessary-get medical at	ention. Ingestion- i	f appreciable quantities have been swallowed-
MEDICAL CONDITIONS AGGRAVATED	BY EXPOSURE			
Pre-existing skin and eye disorders m	ay be aggravated.	Persons with pre-exis	sting skin or respira	atory tract allergies may have an increased
chance of allergic reactions to this pr	oduct.			
CARCINOGEN:	NTP	IARC		OTHER
No				
	SECTIO	N VI – REACT	VITY DATA	
STABILITY	UNSTABLE		CONDITIONS	TO AVOID
	STABLE	X	Excessive he	
INCOMPATIBILITY (Materials to avoid)	•		•	
Strong Acids, Bases, Amines, Merca				
HAZARDOUS DECOMPOSITION PRODU				
Oxides of Carbon, Aldehydes, and ot HAZARDOUS	MAY OCCUR	ices	CONDITION	ONS TO AVOID
POLYMERIZATION	WILL NOT OCCU	IR .	X None	ONO TO AVOID
			1	
	SECTION VII -	- SPILL OR LEA	AK PROCEDU	IRES
STEPS TO BE TAKEN IN CASE MATER				
			spill. Use absorbe	ent material to soak up spill. Shovel or
sweep into container for disposal.	Wash spill area v	vith detergent soluti	on.	
WASTE DISPOSAL METHOD				
In accordance with all Local, State, a	nd Federal Regulat	ions.		
SEC	TION VIII CE	ECIAL PROTE	CTION INFOR	DMATION
SPECIAL RESPIRATORY PROTECTION		ECIAL PROTE	CHON INFOR	MIATION
Use NIOSH approved respirator if pr		ted to produce vapors	l.	
	EXHAUST	to produce vapor.	•	SPECIAL
	ıl ventilation adequ	ate		N/A
	NICAL (General)			OTHER
	l ventilation adequ	ate EYE PRO	FOTION	NA
PROTECTIVE GLOVES Impervious		Chemical		
OTHER PROTECTIVE EQUIPMENT		Chemical	3088160	
Eyewash and safety shower				
		IX – SPECIAL F	RECAUTION	S
PRECAUTIONS TO BE TAKEN IN HAND				
				of vapors- use only with adequate
ventilation. Do not take internally.  OTHER PRECAUTIONS	Avoid storage in a	reas of excessive nea	t or near sources of	fignition.
OTHER PRECAUTIONS				
				NAME
				John Petoskey
HMIS SYMBOL		NFPA SYMBOL		SIGNATURE
HEALTH 2		FIRE	_	Jahr Jul
FLAMMABILITY 1 SEVERE			1	0
REACTIVITY 0 SERIOUS		$\sqrt{2}$	REACTIV	TITLE
MODERA	T 2 MODERATE	<- >	< /	Tech Support
SLIGH'		TOXICITY	<b>&gt;</b>	PREPARATION DATE
MINIMAI	_ U INSIGNIFICAI	<b>V</b> 1	SDECIAL STATE	July 9, 2009 PHONE NUMBER
			SPECIAL	248-941-0347
				PAGE TWO:
				BioLogic Floor Renew (PART
				A)

## **BioLogic Chemical Works MATERIAL SAFETY DATA SHEET**

MFG.CODE # 183B

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	P. O. BOX 82501, Rochester, MI 48308				
CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS				
N/A	BioLogic Floor Renew (PART B)				
CHEMICAL FAMILY	FORMULA				
N/A	N/A				

SECTION II – HAZARDOUS INGREDIENTS				
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES			TLV (UNITS)	
Nonyl Phenol	(CAS# 84852-15-3)	>1	2 mg/1	
m-Xylene Diamine	(CAS# 1477-55-0)	>1	700 ppm	
Isophorone Diamine	(CAS# 2855-13-2)	>1	Not av.	
		•		

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

BOILING POINT °F	475+	SPECIFIC GRAVITY (H2O = 1)	1.0
VAPOR PRESSURE (mm. Hg.)	0.1	PERCENT VOLATILE BY VOLUME (%)	0
VAPOR DENSITY (AIR = 1)	Heavier	EVAPORATION RATE ( =1) n-Butyl Acetate	1
SOLUBILITY IN WATER	Slight	PH	11.5

SECTION IV – FIRE AND EXPLOSION DATA					
FLASH POINT (Method Used)		FLAMMABLE LIMITS	Lel	Uel	
200+°F	Setaflash		N/A	N/A	

### **EXTINGUISHING MEDIA**

Water Fog, Alcohol Foam, Dry Chemical, Carbon Dioxide SPECIAL FIRE FIGHTING PROCEDURES

Fire fighters should wear full protective clothing including self-contained respiratory equipment operated in a positive mode. Use water spray to keep containers cool.
UNUSUAL FIRE AND EXPLOSION HAZARDS

Nitrogen Oxides and Nitrogen containing organic material may be released upon combustion may cause lung damage (Pulmonary edema).

## SECTION V - HEALTH HAZARD DATA THRESHOLD LIMIT VALUE PRIMARY ROUTES OF ENTRY Inhalation X Skin Contact X Other (Specify) 700 ppm/H EFFECTS OF OVEREXPOSURE Eyes- vapors and liquid are irritating and corrosive to eyes- prolonged contact may cause blindness. Skin- corrosive to skin, may cause sensitization. Inhalation- may be corrosive to upper respiratory tract, may be toxic if inhaled. Ingestion- corrosive to mouth, throat, and stomach. 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- remove contaminated clothing and flush with water and then wash with soap and water, launder contaminated clothing before reuse- get medical attention. Inhalation- remove to fresh air and assist breathing as necessary- get medical attention. Ingestion- Do Not Induce Vomiting- if conscious, give water and get medical attention immediately. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE Persons with pre-existing eye, skin, or respiratory disorders. CARCINOGEN: NTP **IARC OTHER** No **SECTION VI – REACTIVITY DATA** CONDITIONS TO AVOID STABILITY UNSTABLE Excessive heat and open flames STABLE X **INCOMPATIBILITY (Materials to avoid)** Strong Oxidizers HAZARDOUS DECOMPOSITION PRODUCTS Oxides of Carbon and Nitrogen, Nitrogen containing organic compounds **HAZARDOUS** MAY OCCUR **CONDITIONS TO AVOID POLYMERIZATION** WILL NOT OCCUR None **SECTION VII - SPILL OR LEAK PROCEDURES** STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Eliminate all sources of ignition and ventilate area. Use absorbent material to soak up spill. Shovel or sweep into container for disposal. Clean area with detergent solution. WASTE DISPOSAL METHOD In accordance with all Local, State, and Federal Regulations.

SECTION VIII – SPECIAL PROTECTION INFORMATION				
SPECIAL RESPIRATORY PRO	TECTION (Specify type)			
Use NIOSH approved resp	irator in areas where TLV has been	en 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				
Eyewash and safety showe	er			

## SECTION IX - SPECIAL PRECAUTIONS

## PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

CORROSIVE MATERIAL- avoid contact- wear protective clothing and wash thoroughly after using. Avoid inhalation of vapors or mists- use only with adequate ventilation. Do not take internally. Avoid storage in areas of excessive heat or near sources

NEPA SYMBOL

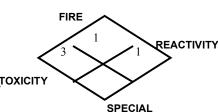
OTHER PRECAUTIONS

of ignition. Keep Out of Reach of Children

### **HMIS SYMBOL**

HEALTH	3
FLAMMABILITY	1
REACTIVITY	1

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



NAME John Petoskev SIGNATURE TITLE Tech Support PREPARATION DATE July 9, 2009 PHONE NUMBER 248-941-0347 PAGE TWO: BioLogic Floor Renew (PART

B)

# **BioLogic Chemical Works MATERIAL SAFETY DATA SHEET**

MFG.CODE # 183C

	SEC	TION I				
MANUFACTURER'S NAME		<del>-</del>	_	MERGENCY T		NO.
BioLogic Chemical Works (248)941-0347						
ADDRESS (Street, City, State and Zip Code)						
P. O. BOX 82501, Roches	ster, MI 48308					
CHEMICAL NAME AND SYNONYMS	/ <b>A</b>	TRADE NAME A		_	NDT (C)	
N/	/A	BioLogic F	ioor Rene	ew (PA	ART C)	
N/	/A	TORMOLA	N/A			
	TOTION II IIAZAI	DOUG INCE	DEDIENT	· C		
5	SECTION II – HAZAF	RDOUS INGE	KEDIENI	5		
HAZARDOUS MIXTU	JRES OF OTHER LIQUIDS, S	OLIDS, OR GASES	5		%	TLV (UNITS)
Silicon Dioxide			(CAS# 763	31-86-9)	>1	10 mg/m <sup>3</sup>
All components of this product are	listed on the E.P.A./T	SCA inventory	y of chem	ical substar	ices.	
	SECTION III – I	PHYSICAL D	ATA			
BOILING POINT °F	N/A	SPECIFIC GRAV		1)		70 lbs/ft
VAPOR PRESSURE (mm. Hg.)	N/A	PERCENT VOL	ATILE BY VC	LUME (%)		0
VAPOR DENSITY (AIR = 1)	N/A	EVAPORATION	I RATE (	=1)		N/A
SOLUBILITY IN WATER	insoluble	PH				N/A
APPEARANCE AND ODOR	•	•				•
Tan granules with no odor.						
QI	ECTION IV - FIRE A	ND EXDI OS	SION DA	ΤΔ		
FLASH POINT (Method Used)		FLAMMABLE LIM			Lel	Uel
					J/A	N/A
None EXTINGUISHING MEDIA						
Use extinguishing media suitable for	or fighting surrounding	fire.				
SPECIAL FIRE FIGHTING PROCEDURES						
Fire fighters should wear full prote	ective clothing including	g self-contained	d respirato	ry equipme	nt operated	d in a
positive mode.  UNUSUAL FIRE AND EXPLOSION HAZARDS	3					
None	5					
110110	(Continued o	n reverse side)				

CECTION V. LIEAL THUAZADD DATA				
SECTION V – HEALTH HAZARD DATA				
THRESHOLD LIMIT VALUE 10 mg/m³ (as dust)	PRIMARY ROUTES OF ENTR	RY Inhalation	X Skin Contact	Other (Specify)
EFFECTS OF OVEREXPOSURE				
Eyes- irritation. Inhalation- prolonged or repeated inhalation of dust may cause irritation to nasal and respiratory tracts.				
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- wash with soap and water. Inhalation- remove to fresh air and assist breathing as necessary- get medical				
attention.				
MEDICAL CONDITIONS AGGRAVATED None Known	BY EXPOSURE			
CARCINOGEN:	NTP	IARC 2A		OTHER
SECTION VI – REACTIVITY DATA				
		REACTIVII		
STABILITY	UNSTABLE		CONDITIONS TO	AVOID
INCOMPATIBILITY (M. C.	STABLE	X	None	
INCOMPATIBILITY (Materials to avoid) Hydrofluoric Acid				
Hydrofluoric Acid  HAZARDOUS DECOMPOSITION PRODUCTS				
None				
HAZARDOUS	MAY OCCUR		CONDITIONS	S TO AVOID
POLYMERIZATION	WILL NOT OCCUR	X	None	
			<u> </u>	
SECTION VII – SPILL OR LEAK PROCEDURES				
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED				
Sweep and return to container for reuse.				
WASTE DISPOSAL METHOD				
In accordance with all Local, State, and Federal Regulations.				
SECTION VIII - SPECIAL PROTECTION INFORMATION				
SPECIAL RESPIRATORY PROTECTION (Specify type)				
Dust mask				
	EXHAUST			SPECIAL
	ntrol TLV			N/A
	NICAL (General)         OTHER           trol TLV         N/A			
PROTECTIVE GLOVES	IIIIOI ILV	EYE PROTECT	ION	IN/A
Impervious		Chemical Go		
OTHER PROTECTIVE EQUIPMENT				
Eyewash and safety shower				
SECTION IX – SPECIAL PRECAUTIONS				
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING				
Avoid inhalation of dust. Do not t	ake internally.			
OTHER PRECAUTIONS  Keep Out of Reach of Children				
				NAME
				John Petoskey
HMIS SYMBOL	NFI	PA SYMBOL		SIGNATURE
LIEALTH		FIRE 🔨		Jahr 3 mg
HEALTH 1 HMIS				June 1
FLAMMABILITY     0     SEVERE       REACTIVITY     0     SERIOUS		0	REACTIVITY	
REACTIVITY 0 SERIOUS MODERAT		$<$ $^{\sim}$	>	TITLE Tech Support
SLIGHT		v <b>/</b>		Tech Support PREPARATION DATE
MINIMAL	IUNICII	' <b>\</b> /		July 9, 2009
		SPE	ECIAL	PHONE NUMBER
				248-941-0347
				PAGE TWO: BioLogic Floor Renew (PART C)