

# BioLogic Chemical Works

## MATERIAL SAFETY DATA SHEET

MFG.CODE # 121A

### SECTION I

<b>MANUFACTURER'S NAME</b> <b>BioLogic Chemical Works</b>		<b>EMERGENCY TELEPHONE NO.</b> <b>248-941-0347</b>	
<b>ADDRESS (Street, City, State and Zip Code)</b> <b>P.O. BOX 82501 Rochester, MI 48308</b>			
<b>CHEMICAL NAME AND SYNONYMS</b> N/A	<b>TRADE NAME AND SYNONYMS</b> Ez Patch Fast Set (PART A)		
<b>CHEMICAL FAMILY</b> N/A	<b>FORMULA</b> N/A		

### SECTION II – HAZARDOUS INGREDIENTS

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES		%	TLV (UNITS)
Bisphenol A Based Epoxy Resin	(CAS# 25068-38-6)	>1	N/A
Alkyl Glycidyl Ether	(CAS# 68609-96-1)	>1	N/A

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

### SECTION III – PHYSICAL DATA

<b>BOILING POINT °F</b> 200+	<b>SPECIFIC GRAVITY (H2O = 1)</b> 1.13
<b>VAPOR PRESSURE (mm. Hg. @ 20°C)</b> 0.09	<b>PERCENT VOLATILE BY VOLUME (%)</b> 0
<b>VAPOR DENSITY (AIR = 1)</b> heavier	<b>EVAPORATION RATE ( =1) N-Butyl Acetate</b> slower
<b>SOLUBILITY IN WATER</b> negligible	<b>PH</b> N/A

#### APPEARANCE AND ODOR

Clear to light amber viscous liquid with characteristic acrylate odor.

### SECTION IV – FIRE AND EXPLOSION DATA

<b>FLASH POINT (Method Used)</b> 200+°F (Setaflash)	<b>FLAMMABLE LIMITS</b>	LeI Not	UeI Determined
<b>EXTINGUISHING MEDIA</b> Water Fog, Dry Chemical, Foam, Carbon Dioxide			
<b>SPECIAL FIRE FIGHTING PROCEDURES</b> Fire fighters should wear full protective clothing including self-contained respiratory equipment operated in a positive mode. Use water spray to keep containers cool.			
<b>UNUSUAL FIRE AND EXPLOSION HAZARDS</b> High temperatures and fire conditions may cause rapid and uncontrolled polymerization which can result in explosions and the violent rupture of containers.			

(Continued on reverse side)

## SECTION V – HEALTH HAZARD DATA

<b>THRESHOLD LIMIT VALUE</b> No OSHA/ACGIH limits have been established	<b>PRIMARY ROUTES OF ENTRY</b> Inhalation    Skin Contact    X    Other (Specify)		
<b>EFFECTS OF OVEREXPOSURE</b> Eyes- moderately irritating. Skin- moderate irritation, prolonged contact may cause blisters, may cause skin sensitization. Inhalation- may cause respiratory tract sensitization/irritation.			
<b>EMERGENCY AND FIRST AID PROCEDURE</b> 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- if appreciable quantities have been swallowed- get medical attention.			
<b>MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE</b> Pre-existing skin and eye disorders may be aggravated. Persons with pre-existing skin or respiratory tract allergies may have an increased chance of allergic reactions to this product.			
<b>CARCINOGEN:</b> No	NTP	IARC	OTHER

## SECTION VI – REACTIVITY DATA

<b>STABILITY</b>	<b>UNSTABLE</b>		<b>CONDITIONS TO AVOID</b> Excessive heat
	<b>STABLE</b>	X	
<b>INCOMPATIBILITY (Materials to avoid)</b> Strong Acids, Bases, Amines, Mercaptans			
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b> Oxides of Carbon, Aldehydes, and other organic substances			
<b>HAZARDOUS POLYMERIZATION</b>	<b>MAY OCCUR</b>		<b>CONDITIONS TO AVOID</b> None
	<b>WILL NOT OCCUR</b>	X	

## SECTION VII – SPILL OR LEAK PROCEDURES

<b>STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED</b> Eliminate all sources of ignition and ventilate area. Dike area to contain spill. Use absorbent material to soak up spill. Shovel or sweep into container for disposal. Wash spill area with detergent solution.	
<b>WASTE DISPOSAL METHOD</b> In accordance with all Local, State, and Federal Regulations.	

## SECTION VIII – SPECIAL PROTECTION INFORMATION

<b>SPECIAL RESPIRATORY PROTECTION (Specify type)</b> Use NIOSH approved respirator if product has been heated to produce vapors.		
<b>VENTILATION</b>	<b>LOCAL EXHAUST</b> Normal ventilation adequate	<b>SPECIAL</b> N/A
	<b>MECHANICAL (General)</b> Normal ventilation adequate	<b>OTHER</b> NA
<b>PROTECTIVE GLOVES</b> Impervious	<b>EYE PROTECTION</b> Chemical Goggles	
<b>OTHER PROTECTIVE EQUIPMENT</b> Eyewash and safety shower		

## SECTION IX – SPECIAL PRECAUTIONS

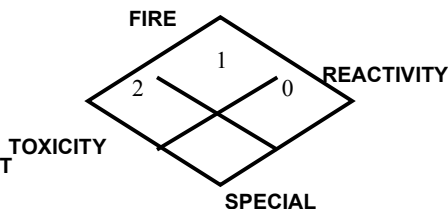
<b>PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING</b> Avoid contact- wear protective clothing and wash thoroughly after using. Avoid inhalation of vapors- use only with adequate ventilation. Do not take internally. Avoid storage in areas of excessive heat or near sources of ignition.	
<b>OTHER PRECAUTIONS</b> Keep Out of Reach of Children	

### HMIS SYMBOL

HEALTH	2
FLAMMABILITY	1
REACTIVITY	0

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

### NFPA SYMBOL



<b>NAME</b> John Petoskey
<b>SIGNATURE</b> 
<b>TITLE</b> Technical Support
<b>PREPARATION DATE</b> July 9, 2009
<b>PHONE NUMBER</b> <b>248-941-0347</b>
<b>PAGE TWO:</b> Patch Fast Set (PART A) <span style="float: right;">Ez</span>

# BioLogic Chemical Works

## MATERIAL SAFETY DATA SHEET

MFG.CODE # 121B

### SECTION I

MANUFACTURER'S NAME <b>BioLogic Chemical Works</b>		EMERGENCY TELEPHONE NO. <b>248-941-0347</b>
ADDRESS (Street, City, State and Zip Code) <b>P.O. BOX 82501 Rochester, MI 48308</b>		
CHEMICAL NAME AND SYNONYMS Mixture	TRADE NAME AND SYNONYMS Ez Patch Fast Set (PART B)	
CHEMICAL FAMILY Aliphatic Amine	FORMULA N/A	

### SECTION II – HAZARDOUS INGREDIENTS

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES		%	TLV (UNITS)
Dimethylenetiramine (DETA)	(CAS# 111-40-0)	>1	2.33 g/kg (rat)
Bisphenol A	(CAS# 80-05-7)	>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	>404	SPECIFIC GRAVITY (H <sub>2</sub> O = 1)	1.02
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	partial	PH	11.5
APPEARANCE AND ODOR Clear liquid with amine odor.			

### SECTION IV – FIRE AND EXPLOSION DATA

FLASH POINT (Method Used)	FLAMMABLE LIMITS	LeI	UeI
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).			

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## SECTION V – HEALTH HAZARD DATA

<b>THRESHOLD LIMIT VALUE</b> 700 ppm/H	<b>PRIMARY ROUTES OF ENTRY</b> Inhalation <input checked="" type="checkbox"/> Skin Contact <input checked="" type="checkbox"/> Other (Specify)		
<b>EFFECTS OF OVEREXPOSURE</b> 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.			
<b>EMERGENCY AND FIRST AID PROCEDURE</b> 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- give one glass of water unless victim is drowsy, convulsing, or unconscious- get medical attention immediately.			
<b>MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE</b> Persons with pre-existing eye, skin, or respiratory disorders.			
<b>CARCINOGEN:</b> No	NTP	IARC	OTHER

## SECTION VI – REACTIVITY DATA

<b>STABILITY</b>	<b>UNSTABLE</b>		<b>CONDITIONS TO AVOID</b> Excessive heat and open flames
	<b>STABLE</b>	X	
<b>INCOMPATIBILITY (Materials to avoid)</b> Strong Oxidizers			
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b> Oxides of Carbon and Nitrogen, Nitrogen containing organic compounds			
<b>HAZARDOUS POLYMERIZATION</b>	<b>MAY OCCUR</b>		<b>CONDITIONS TO AVOID</b> None
	<b>WILL NOT OCCUR</b>	X	

## SECTION VII – SPILL OR LEAK PROCEDURES

<b>STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED</b> 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.	
<b>WASTE DISPOSAL METHOD</b> In accordance with all Local, State, and Federal Regulations.	

## SECTION VIII – SPECIAL PROTECTION INFORMATION

<b>SPECIAL RESPIRATORY PROTECTION (Specify type)</b> Use NIOSH approved respirator in areas where TLV has been exceeded.		
<b>VENTILATION</b>	<b>LOCAL EXHAUST</b> To control TLV	<b>SPECIAL</b> N/A
	<b>MECHANICAL (General)</b> To control TLV	<b>OTHER</b> N/A
<b>PROTECTIVE GLOVES</b> Impervious	<b>EYE PROTECTION</b> Chemical Goggles	
<b>OTHER PROTECTIVE EQUIPMENT</b> Eyewash and safety shower		

## SECTION IX – SPECIAL PRECAUTIONS

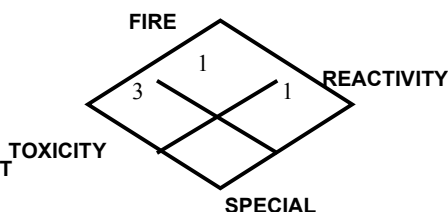
<b>PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING</b> CORROSIVE MATERIAL- avoid contact- wear protective clothing and wash thoroughly after using. Avoid inhalation of vapors or mists- use only with adequate ventilation. Do not take internally. Avoid storage in areas of excessive heat or near sources	
<b>OTHER PRECAUTIONS</b> of ignition. Keep container closed when not in use. Keep Out of Reach of Children	

### HMIS SYMBOL

HEALTH	3
FLAMMABILITY	1
REACTIVITY	1

	<b>HMIS</b> SEVERE 4 SERIOUS 3 MODERAT 2 SLIGHT 1 MINIMAL 0	<b>NFPA</b> EXTREME HIGH MODERATE SLIGHT INSIGNIFICANT
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### NFPA SYMBOL



<b>NAME</b>	John Petoskey
<b>SIGNATURE</b>	
<b>TITLE</b>	Technical Support
<b>PREPARATION DATE</b>	July 9, 2009
<b>PHONE NUMBER</b>	248-941-0347
<b>PAGE TWO:</b> Ez Patch Fast Set (PART B)	

# BioLogic Chemical Works

## MATERIAL SAFETY DATA SHEET

MFG.CODE # 121C

### SECTION I

MANUFACTURER'S NAME <b>TRI-CHEM CORPORATION</b>		EMERGENCY TELEPHONE NO. <b>248-941-0347</b>	
ADDRESS (Street, City, State and Zip Code) <b>P.O. BOX 82501 Rochester, MI 48308</b>			
CHEMICAL NAME AND SYNONYMS N/A		TRADE NAME AND SYNONYMS Ez Patch Fast Set (PART C)	
CHEMICAL FAMILY N/A		FORMULA N/A	

### SECTION II – HAZARDOUS INGREDIENTS

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES		%	TLV (UNITS)
Silicon Dioxide	(CAS# 7631-86-9)	>1	10 mg/m <sup>3</sup>
Titanium Dioxide	(CAS# 13463-67-7)	<1	N/A
Carbon Black	(CAS# 1333-86-4)	<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	N/A	SPECIFIC GRAVITY (H <sub>2</sub> O = 1)	70 lbs/ft
VAPOR PRESSURE (mm. Hg.)	N/A	PERCENT VOLATILE BY VOLUME (%)	0
VAPOR DENSITY (AIR = 1)	N/A	EVAPORATION RATE (=1)	N/A
SOLUBILITY IN WATER	insoluble	PH	N/A
APPEARANCE AND ODOR Grey granules with no odor.			

### SECTION IV – FIRE AND EXPLOSION DATA

FLASH POINT (Method Used)	FLAMMABLE LIMITS	LeI	UeI
		N/A	N/A
None			
EXTINGUISHING MEDIA Use extinguishing 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 None			

(Continued on reverse side)

## SECTION V – HEALTH HAZARD DATA

<b>THRESHOLD LIMIT VALUE</b> 10 mg/m <sup>3</sup> (as dust)	<b>PRIMARY ROUTES OF ENTRY</b> Inhalation <input checked="" type="checkbox"/> Skin Contact    Other (Specify)		
<b>EFFECTS OF OVEREXPOSURE</b> Eyes- irritation. Inhalation-prolonged or repeated inhalation of dust may cause irritation to nasal and respiratory tracts.			
<b>EMERGENCY AND FIRST AID PROCEDURE</b> 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.			
<b>MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE</b> None Known			
<b>CARCINOGEN:</b>	NTP	IARC 2A	OTHER

## SECTION VI – REACTIVITY DATA

<b>STABILITY</b>	<b>UNSTABLE</b>		<b>CONDITIONS TO AVOID</b> None
	<b>STABLE</b>	X	
<b>INCOMPATIBILITY (Materials to avoid)</b> Hydrofluoric Acid			
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b> None			
<b>HAZARDOUS POLYMERIZATION</b>	<b>MAY OCCUR</b>		<b>CONDITIONS TO AVOID</b> None
	<b>WILL NOT OCCUR</b>	X	

## SECTION VII – SPILL OR LEAK PROCEDURES

<b>STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED</b> Sweep up and return to container for reuse.
<b>WASTE DISPOSAL METHOD</b> In accordance with all Local, State, and Federal Regulations.

## SECTION VIII – SPECIAL PROTECTION INFORMATION

<b>SPECIAL RESPIRATORY PROTECTION (Specify type)</b> Dust mask			
<b>VENTILATION</b>	<b>LOCAL EXHAUST</b> To control TLV	<b>SPECIAL</b>	N/A
	<b>MECHANICAL (General)</b> To control TLV	<b>OTHER</b>	N/A
<b>PROTECTIVE GLOVES</b> Impervious		<b>EYE PROTECTION</b> Chemical Goggles	
<b>OTHER PROTECTIVE EQUIPMENT</b> Eyewash and safety shower			

## SECTION IX – SPECIAL PRECAUTIONS

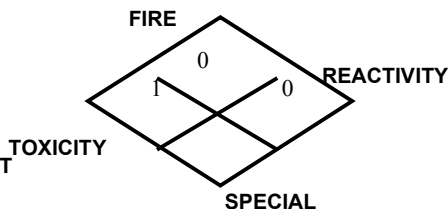
<b>PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING</b> Avoid inhalation of dust. Do not take internally.
<b>OTHER PRECAUTIONS</b> Keep Out of Reach of Children

### HMIS SYMBOL

HEALTH	1
FLAMMABILITY	0
REACTIVITY	0

	<b>HMIS</b>	<b>NFPA</b>
SEVERE	4	EXTREME
SERIOUS	3	HIGH
MODERATE	2	MODERATE
SLIGHT	1	SLIGHT
MINIMAL	0	INSIGNIFICANT

### NFPA SYMBOL



<b>NAME</b>	John Petoskey
<b>SIGNATURE</b>	
<b>TITLE</b>	Technical Support
<b>PREPARATION DATE</b>	July 9, 2009
<b>PHONE NUMBER</b>	248-941-0347
<b>PAGE TWO:</b>	Ez Patch Fast Set (PART C)