

# BBC Biochemical MATERIAL SAFETY DATA SHEET

## Section 1. Chemical Product and Company Information

Common Name: Cyto•CellBlock Fix™	Code: 2300
Supplier: BBC Biochemical	MSDS#: 2300
Synonym: None	Validation Date: 4-23-09
Trade Name: None	Print Date: 4-23-09
Material Uses: Fixation of cells	Responsible Name: Dr. B
Manufacturer: BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477

## Section 2. Composition and Information on Ingredients

Name	CAS#	OSHA PEL/TWA	OSHA PEL/STEL
1) Water	7732-18-5		
3) Formaldehyde 37%	50-00-0	0.75 ppm	2 ppm
4) Acetone	67-64-1	1000 ppm	N/A
5) Selected Buffers	N/A	N/A	N/A

## Section 3. Hazards Identification

Physical State and Appearance	Clear liquid, pungent odor.
Emergency Overview	Not available.
Routes of Entry	Eye contact, inhalation, ingestion, skin contact.
Potential Acute Health Effects	
<b>Eyes</b>	Irritation, may cause permanent damage.
<b>Skin</b>	Irritation, sensitizer.
<b>Inhalation</b>	Irritation to nose, throat and respiratory system.
<b>Ingestion</b>	May cause allergic reaction, may cause blindness.
Potential Chronic Health Effects	Formaldehyde is a strong sensitizer. It has the potential to cause cancer in humans. Various animal experiment have shown it to cause cancer in rats.
Medical Conditions Aggravated by Overexposure	Respiratory conditions.
Overexposure/Signs/Symptoms	GET IMMEDIATE ASSISTANCE FOR ALL CASES OF OVEREXPOSURE.

## Section 4. First Aid Measures

Eye Contact	Immediately flush with water for at least 15 minutes.
Skin Contact	Wash thoroughly with water. Remove contaminated clothing at once (launder before reuse); discard contaminated shoes.
Inhalation	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion	If conscious, dilute, inactive or absorb the ingested formaldehyde by giving milk, activated charcoal, or water.
Notes to Physician	Not available.

## Section 5. Fire Fighting Measures

Flammability of the Product	Flammable.
Auto-ignition Temperature	Not available.
Flash Points	Not available.
Flammable Limits	LEL (%) 3.3 UEL (%) 19.0
Products of Combustion	Not available.
Fire Hazards in Presence	Not available.

**Of Various Substances**

<b>Explosion Hazards in Presence of Various Substances</b>	Not available.
<b>Fire Fighting Media and Instructions</b>	Dry chemical, carbon dioxide, "Alcohol" foam; water spray to cool fire-exposed containers and disperse vapors.
<b>Protective Clothing (Fire)</b>	Wear self-contained breathing apparatus and protective clothing.
<b>Special Remarks on Fire Hazards</b>	Vapor can travel distances to ignition source and flash back. Thermal decomposition produces toxic fumes.
<b>Special Remarks on Explosion Hazards</b>	

**Section 6. Accidental Release Measures**

<b>Small Spill and Leak</b>	Evacuate the area of all unnecessary personnel. Wear suitable protective equipment listed under Section VIII. Eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Contain the release and eliminate it's source, if this can be done without risk. Take up and containerize for proper disposal. Comply with Federal, State, and local regulations on reporting releases.
<b>Large Spill and Leak</b>	Same as above.

**Section 7, Handling and Storage**

<b>Handling</b>	Wash thoroughly after handling. Do not take internally. Have eye wash and safety equipment available. Do not breathe vapor or mist. Do not get in eyes, on skin, or on clothing.
<b>Storage</b>	Keep container tightly closed. Store away from heat, sparks, open flame.

**Section 8. Exposure Controls / Personal Protection****Engineering Controls****Personal Protection**

**Eyes** Safety glasses with side shields must be worn at all times.

**Body** Impervious protective clothing must be worn to prevent skin contact.

**Respiratory** If workplace exposure limit(s) of product or any component is exceeded (see TLV/PEL), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. Engineering and/or administrative controls should be implemented to reduce exposure. Material must be handled or transferred in an approved fume hood or with adequate ventilation.

**Hands** Neoprene, Nitrile or equivalent gloves.

**Feet** Impervious footwear should be worn to prevent skin contact.

**Personal Protection in Case of a Large Spill** All of the above.

<b>Product Name</b>	<b>Exposure Limits</b>
1) Acetone	OSHA PEL 1000ppm TWA
2) 37% Formaldehyde	OSHA PEL 0.75ppm TWA
3)	

**Consult Local authorities before acceptable exposure limits.**

**Section 9. Physical and Chemical Properties**

<b>Physical State and Appearance</b>	Clear liquid.	<b>Odor:</b>	Pungent.
<b>Molecular Weight</b>	Not applicable.	<b>Taste:</b>	Not available.
<b>Molecular Formula</b>	Not applicable.	<b>Color:</b>	Clear
<b>pH (1%/Water)</b>	Not applicable.		
<b>Boiling/Condensation Point</b>	Not applicable.		
<b>Melting/Freezing Point</b>	Not applicable.		
<b>Critical Temperature</b>	Not applicable.		
<b>Specific Gravity</b>	Not applicable.		
<b>Vapor Pressure</b>	Not applicable.		
<b>Vapor Density</b>	Not applicable.		
<b>Volatility</b>	Not applicable.		
<b>Odor Threshold</b>	Not applicable.		
<b>Evaporation Rate</b>	Not applicable.		
<b>VOC</b>	Not available.		
<b>Viscosity</b>	Not available.		
<b>Ionicity (in water)</b>	Not available.		
<b>Dispersion Properties</b>	Not available.		
<b>Solubility</b>	Soluble in water.		

Physical Chemical Comments	Not available.
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### Section 10. Stability and Reactivity

Stability and Reactivity	Stable.
Conditions of Instability	Heat, sparks, open flame.
Incompatibility with Various Substances	Data not available.
Hazardous Decomposition Products	Co <sub>x</sub> .
Hazardous Polymerization	Data not available.

### Section 11. Toxicological Information

Toxicity to Animals	LD50 Formaldehyde orl-mus: 42 mg/kg LC50: Not available.									
Chronic Effects on Humans	This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372: <table border="1"> <thead> <tr> <th>CAS #</th> <th>Chemical Name</th> <th>DeMinimis/SARA 313%</th> </tr> </thead> <tbody> <tr> <td>50-00-0</td> <td>Formaldehyde</td> <td>0.1</td> </tr> <tr> <td>67-56-1</td> <td>Methanol</td> <td>1.0</td> </tr> </tbody> </table> TSCA: This product is a "mixture".	CAS #	Chemical Name	DeMinimis/SARA 313%	50-00-0	Formaldehyde	0.1	67-56-1	Methanol	1.0
CAS #	Chemical Name	DeMinimis/SARA 313%								
50-00-0	Formaldehyde	0.1								
67-56-1	Methanol	1.0								
Other Toxic Effects on Humans										
Special Remarks on Toxicity to Animals	Tests on laboratory animals indicate formaldehyde may cause tumors and may produce adverse mutagenic and reproductive effects.									
Special Remarks on Chronic Effects on Humans	Not available.									
Special Remarks on Other Toxic Effects on Humans	Not available.									

### Section 12. Ecological Information

Ecotoxicity	Not available.
BODS and COD	Not available.
Biodegradable/OEDC	Not available.
Mobility	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on The Products of Biodegradation	Not available.

### Section 13. Disposal Considerations

Waste Information	Not available.
Waste Stream	Not available.
Consult your local or regional authorities.	

### Section 14. Transport Information

DOT Classification	Flammable, UN1090, Acetone, 3, II
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	Flammable, UN1090, Acetone, 3, II
ADR/RID Classification	ADR (Europe) Information not available.
IMO/IMDG Classification	IMDG Information not available.
ICAO/IATA Classification	See IATA Regulations, Flammable, UN1090, Acetone, 3, II

### Section 15. Other Information

Label requirements
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<b>Hazardous Material Information System (U.S.A.)</b>	<b>Health</b>	1	<b>National Fire Protection Association (U.S.A.)</b>	<p>Health 1 Fire Hazard 3 Reactivity 1 Specific Hazard</p>
	<b>Fire Hazard</b>	3		
	<b>Reactivity</b>	1		
	<b>Personal Protection</b>			
<b>References</b>				
<b>Other Special Considerations</b>				
<b>Notice to Reader</b>				
<p><i>To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.</i></p>				