

## BBC Biochemical

## MATERIAL SAFETY DATA SHEET

**Section 1. Chemical Product and Company Information**

Common Name: FNA•Fix™	Code: 2400
Supplier: BBC Biochemical	MSDS#: 2400
Synonym: None	Validation Date: 2-20-09
Trade Name: None	Print Date: 2-20-09
Material Uses: Fixation of cell spreads	Responsible Name: Dr. B
Manufacturer: BBC Biochemical PO Box 1320 409 Eleanor Lane Mount Vernon, WA 98273 1-800-635-4477	<b>In Case of Emergency: 1-800-424-9300 Chemtrec USA 1-202-483-7616 Chemtrec Intrl 1-800-635-4477</b>

**Section 2. Composition and Information on Ingredients**

Name	CAS#	OSHA PEL	OSHA STEL
1) Denatured Ethanol mixture			
Ethyl Alcohol	64-17-5	1000 ppm	None established
Methyl Alcohol	67-56-1	200 ppm	250 ppm
Isopropyl Alcohol	67-63-0	400 ppm	500 ppm
2) Selected Glycols	N/A	N/A	N/A

**Section 3. Hazards Identification**

<b>Physical State and Appearance</b>	Clear, colorless liquid with a vinous odor.
<b>Emergency Overview</b>	Not available.
<b>Routes of Entry</b>	Eye contact, inhalation, ingestion, skin contact. Get medical assistance for all cases of overexposure.
<b>Potential Acute Health Effects</b>	
<b>Eyes</b>	Irritation.
<b>Skin</b>	Irritation.
<b>Inhalation</b>	May cause dizziness, headache, nausea, narcosis.
<b>Ingestion</b>	May cause nausea, blindness, damage to gastrointestinal tract, liver, kidneys, and cardiovascular system.
<b>Potential Chronic Health Effects</b>	Not listed (IARC, NTP, OSHA) as cancer causing agent.
<b>Medical Conditions Aggravated by Overexposure/Overexposure/Signs/Symptoms</b>	Kidney, liver, heart and GI conditions.

**Section 4. First Aid Measures**

<b>Eye Contact</b>	Immediately flush thoroughly with water for at least 15 minutes.
<b>Skin Contact</b>	Wash thoroughly with water.
<b>Inhalation</b>	Remove to fresh air; give artificial respiration if breathing has stopped.
<b>Ingestion</b>	If conscious, drink water. Seek medical attention. Do not induce vomiting.
<b>Notes to Physician</b>	Not available.

**Section 5. Fire Fighting Measures**

<b>Flammability of the Product</b>	Flammable.
<b>Auto-ignition Temperature</b>	Not available.
<b>Flash Points</b>	About 55°F (cc).
<b>Flammable Limits</b>	LEL (%) 3.3 UEL (%) 19.0
<b>Products of Combustion</b>	Not available.
<b>Fire Hazards in Presence Of Various Substances</b>	Not available.

<b>Explosion Hazards in Presence of Various Substances</b>	Not available.
<b>Fire Fighting Media and Instructions</b>	Dry chemical, carbon dioxide, alcohol foam. Use water spray to cool fire-exposed containers and disperse vapors.
<b>Protective Clothing (Fire)</b>	Fire fighters should use self-contained breathing apparatus and protective clothing.
<b>Special Remarks on Fire Hazards</b>	Vapor can travel distances to ignition source and flash back.
<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. Eliminate all sources of ignition and provide ventilation. Contain the release and eliminate its source, if this can be done without risk. <b>Dilution with water will raise the flash point.</b> Small spills may be picked up with suitable absorbent material. 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>	Use adequate ventilation. Avoid repeated and prolonged skin contact or breathing of vapors. Do not breathe vapors. Do not get in eyes.
<b>Storage</b>	Store and use in areas away from heat, sparks, and open flame. Store in tightly closed containers in a cool, dry, well-ventilated, fire-resistant area. Store away from oxidizing agents.

### Section 8. Exposure Controls / Personal Protection

<b>Engineering Controls</b>	
<b>Personal Protection</b>	
<b>Eyes</b>	Safety glasses with approved side shields should be worn at all times.
<b>Body</b>	Protective clothing to minimize skin contact.
<b>Respiratory</b>	Use NIOSH or MSHA approved respirators in absence of proper environmental control-approved fume hood or other approved ventilation.
<b>Hands</b>	Neoprene, Nitrile or equivalent glove.
<b>Feet</b>	Impervious footwear.
<b>Personal Protection in Case of a Large Spill</b>	All of the above. Eye wash and safety shower should be available.
<b>Product Name</b>	<b>Exposure Limits</b>
1)	
2)	
3)	
<b>Consult Local authorities before acceptable exposure limits.</b>	

### Section 9. Physical and Chemical Properties

<b>Physical State and Appearance</b>	Clear, colorless liquid with a vinous odor.	<b>Odor:</b>	Vinous.
<b>Molecular Weight</b>	Not applicable.	<b>Taste:</b>	Not available.
<b>Molecular Formula</b>	Not applicable.	<b>Color:</b>	Colorless.
<b>pH (1%/Water)</b>	Not applicable.		
<b>Boiling/Condensation Point</b>	173° F		
<b>Melting/Freezing Point</b>	Not applicable.		
<b>Critical Temperature</b>	Not applicable.		
<b>Specific Gravity</b>	Approximately 0.8; (Water=1)		
<b>Vapor Pressure (mm Hg)</b>	40-50 @ 66°F.		
<b>Vapor Density</b>	Ethanol: 1.6; (Air=1)		
<b>Volatility</b>	100% by weight.		
<b>Odor Threshold</b>	Not applicable.		
<b>Evaporation Rate</b>	1.4; (BuOAc=1)		
<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>	Complete in water.		
<b>Physical Chemical Comments</b>	Not available.		

**Section 10. Stability and Reactivity**

<b>Stability and Reactivity</b>	Stable.
<b>Conditions of Instability</b>	Heat.
<b>Incompatibility with Various Substances</b>	Strong oxidizing agents, such as nitrates, perchlorates, peroxides, chromic, nitric and sulfuric acid.
<b>Hazardous Decomposition Products</b>	Thermal-oxidative degradation can produce oxides of carbon. Toxic gases and vapors (i.e. carbon monoxide, formaldehyde) may be released in a fire.
<b>Hazardous Polymerization</b>	Will not occur.

**Section 11. Toxicological Information**

<b>Toxicity to Animals</b>	LD50: Not available. LC50: Not available.						
<b>Chronic Effects on Humans</b>	This product contains the following toxic chemical 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" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">CAS #</th> <th style="text-align: left;">Chemical Name</th> <th style="text-align: left;">Percent by Weight</th> </tr> </thead> <tbody> <tr> <td>67-56-1</td> <td>Methanol</td> <td>&lt; 5%</td> </tr> </tbody> </table>	CAS #	Chemical Name	Percent by Weight	67-56-1	Methanol	< 5%
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67-56-1	Methanol	< 5%					
<b>Other Toxic Effects on Humans</b>	Absorption through the skin, mucous membranes or eyes may contribute to overall exposure.						
<b>Special Remarks on Toxicity to Animals</b>	Not available.						
<b>Special Remarks on Chronic Effects on Humans</b>	Not available.						
<b>Special Remarks on Other Toxic Effects on Humans</b>	Not available.						

**Section 12. Ecological Information**

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

**Section 13. Disposal Considerations**

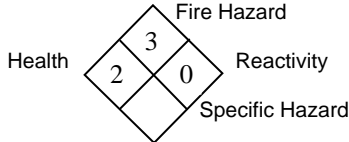
<b>Waste Information</b>	Not available.
<b>Waste Stream</b>	Not available.
<b>Consult your local or regional authorities.</b>	

**Section 14. Transport Information**

<b>DOT Classification</b>	Flammable liquid. UN1170, Ethanol, 3, II
<b>Marine Pollutant</b>	Not available.
<b>Hazardous Substances Reportable Quantity</b>	Not available.
<b>Special Provisions for Transport</b>	Not applicable.
<b>TDG Classification</b>	Flammable liquid. UN1170, Ethanol, 3, II
<b>ADR/RID Classification</b>	Not controlled under ADR (Europe).
<b>IMO/IMDG Classification</b>	Not controlled under IMDG.
<b>ICAO/IATA Classification</b>	See IATA regulations, Flammable liquid. UN1170, Ethanol, 3, II

**Section 15. Other Information**

**Label requirements**

<b>Hazardous Material Information System (U.S.A.)</b>	<b>Health</b>	2	<b>National Fire Protection Association (U.S.A.)</b>	
	<b>Fire Hazard</b>	3		
	<b>Reactivity</b>	0		
	<b>Personal Protection</b>			

**References**

**Other Special Considerations**

**Notice to Reader**

*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.*