BBC Biochemical MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name:	**Cal•Fix™**	**Code:**	**6025**
Supplier:	**BBC Biochemical**	**MSDS#:**	**6025**
Synonym:		**Validation Date:**	**3-3-09**
Trade Name:	**Cal•Fix™**	**Print Date:**	**3-3-09**
Material Uses:	**Not available**	**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#	% by Weight	Exposure Limits
1) Water	7732-18-5	Percentage composition is	Not available
2) Formaldehyde 37%	50-00-0	withheld as a trade secret.	Not available
3) Selected Buffers	Not available		Not available
4) Formic Acid	64-18-8	<10%	Not available

Section 3. Hazards Identification

Physical State and Appearance	Clear liquid.
Emergency Overview	Not available.
Routes of Entry	Eye contact, inhalation, ingestion, skin contact.
Potential Acute Health Effects	
Eyes	Irritation, may cause permanent damage.
Skin	Irritation.
Inhalation	Irritation to nose, throat and respiratory system.
Ingestion	May cause allergic reaction. Irritation to throat and respiratory system.
Potential Chronic Health Effects	
Medical Conditions Aggravated by Overexposure	Formaldehyde is a strong sensitizer and may cause an allergic reaction.
Overexposure/ Signs/Symptoms	

Section 4. First Aid Measures

Eye Contact	Immediately flush thoroughly 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, inactivate, or absorb the ingested formaldehyde by giving milk, activated charcoal, or water. Get immediate medical attention.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Not available.
Auto-ignition Temperature	Not available.
Flash Points	None.
Flammable Limits	Not available.
Products of Combustion	Not available.
Fire Hazards in Presence Of Various Substances	Not available.
Explosion Hazards in	Thermal decomposition produces toxic fumes.

Presence of Various Substances	
Fire Fighting Media and Instructions	CO_2, foam, water. Wear self-contained breathing apparatus and protective clothing.
Protective Clothing (Fire)	
Special Remarks on Fire Hazards	
Special Remarks on Explosion Hazards	

Section 6. Accidental Release Measures

Small Spill and Leak	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 as described under Waste Disposal Method. Comply with Federal, State and local regulations on reporting releases. Always contact a permitted waste disposer (TSD) to assure compliance with all current local, state and federal regulations.
Large Spill and Leak	Same as above.

Section 7, Handling and Storage

Handling	Do not breathe vapor or mist. Do not get in eyes, on skin, or on clothing.
Storage	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. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your safety supplier). 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	Not available.
Personal Protection in Case of a Large Spill	Safety glasses with side shields, impervious protective clothing, respirator if necessary and neoprene, nitrile or equivalent gloves.

Product Name	**Exposure Limits**
1)Water	Not available
2)Formaldehyde 37% CAS 50-00-0	OSHA PEL 0.75ppm TWA, 2.0ppm STEL
3)Formic Acid CAS	OSHA PEL 5ppm TWA

Consult Local authorities before acceptable exposure limits.

Section 9. Physical and Chemical Properties

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

Physical Chemical Comments	Not available.

Section 10. Stability and Reactivity

Stability and Reactivity	Stable.
Conditions of Instability	Avoid contact with ignition sources.
Incompatibility with Various Substances	Acids, oxidizers, strong alkalies. Contact with HCl may cause formation of the potent carcinogen, bischloromethyl ether.
Hazardous Decomposition Products	Metal•O, HCl, CL, CO_x
Hazardous Polymerization	Not available.

Section 11. Toxicological Information

Toxicity to Animals	Formaldehyde 37% CAS 50-00-0 orl-rat LD50: 800mg/kg LC50: Not available. Chemical Name CAS # DeMinimis/SARA 313% Formaldehyde 50-00-0 0.1 Formic Acid CAS 64-11-6 Oral rat LD50: 1100 mg/kg; inhalation rat LC50: 15 gm/m3/15M; investigated as a tumorigen, mutagen.
Chronic Effects on Humans	Formaldehyde has the potential to cause cancer in humans. Repeated and prolonged exposure increases the risk. In humans, formaldehyde exposure has been associated with cancers of the lungs, nasopharynx and oropharynx, and nasal passages.
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. Cited in Registry of Toxic Effects of Substances (RTECS).
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	UN3264, Corrosive Liquid; Acidic; Inorganic; n.o.s.; (Formic Acid), 8, III
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	UN3264, Corrosive Liquid; Acidic; Inorganic; n.o.s.; (Formic Acid), 8, III
ADR/RID Classification	ADR (Europe) Information not available.
IMO/IMDG Classification	IMDG Information not available.
ICAO/IATA Classification	See IATA Regulations, UN3264, Corrosive Liquid; Acidic; Inorganic; n.o.s.; (Formic Acid), 8, III

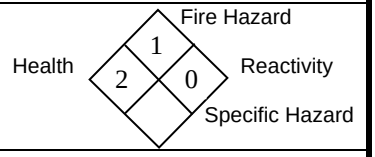
Section 15. Other Information

Label requirements

Hazardous Material Information System (U.S.A.)

Health	2
Fire Hazard	1
Reactivity	0
Personal Protection	

National Fire Protection Association (U.S.A.)



References

Other Special Considerations

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