

BBC Biochemical

MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name: Alcoholic Formalin 10%	Code: 0400
Supplier: BBC Biochemical	MSDS#: 0400
Synonym: None	Validation Date: 2-19-09
Trade Name: None	Print Date: 2-19-09
Material Uses: Rapid Fixation	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/WA	OSHA PEL/STEL
1) Water	7732-18-5	Not available	Not available
3) Formaldehyde 37%	50-00-0	Not available	Not available
4) Ethyl Alcohol	64-17-5	.75 ppm	2 ppm
5) Select Buffers	Not available	Not available	Not available

Section 3. Hazards Identification

Physical State and Appearance	Clear Aqueous Solution, slight alcohol odor.
Emergency Overview	Not available.
Routes of Entry	Eye Contact, inhalation, skin contact and ingestion
Potential Acute Health Effects	<p>Eyes Irritation, may cause permanent damage.</p> <p>Skin May cause mild irritation, redness, cracking and drying. Corrosive.</p> <p>Inhalation Causes irritation to the respiratory tract. High concentrations may cause central nervous system depression, with weakness, drowsiness, nausea, vomiting, diarrhea, fatigue and loss of consciousness.</p> <p>Ingestion Poisonous. Causes nausea, headache, and double vision. May cause unconsciousness or death.</p>
Potential Chronic Health Effects	Formaldehyde as 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.
Medical Conditions Aggravated by Overexposure	Respiratory conditions.
Overexposure/Signs/Symptoms	

Section 4. First Aid Measures

Eye Contact	Immediately flush thoroughly with water for at least 15 minutes. Call a physician. If eye irritation persists due to exposure refer to an ophthalmologist for evaluation.
Skin Contact	Remove contaminated clothing at once (launder before reuse); discard contaminated shoes. Wash thoroughly with water for at least 15 minutes.
Inhalation	Move individual to fresh air immediately. If breathing is difficult, give oxygen. If breathing has stopped, administer artificial respiration. Call a physician.
Ingestion	If swallowed, do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician immediately. ANTIDOTE(Ingestion) Unless unconscious or convulsing, give large amounts of water or milk.
Notes to Physician	When plasma methanol concentrations exceed 20mg/dl and when there is evidence of acidosis or visual abnormalities, a 10% solution of ethanol in 5% dextrose administered intravenously is a safe, effective antidote.

Section 5. Fire Fighting Measures

Flammability Product	Yes under the conditions of heat, flame, sparks or static electricity.
-----------------------------	--

Auto-ignition Temperature	Avoid contact with ignition sources.
Flash Points	101 F (TCC)
Flammable Limits	Upper Limit(% by volume): 73% (37% Formaldehyde) Lower Limit: 7% (37% Formaldehyde)
Products of Combustion	Formic Acid.
Fire Hazards in Presence Of Various Substances	Not available.
Explosion Hazards in Presence of Various Substances	Thermal decomposition produces toxic fumes. Corrosive to most metals when dissolved in water.
Fire Fighting Media and Instructions	Wear self-contained breathing apparatus and protective clothing.
Protective Clothing (Fire)	
Special Remarks on Fire Hazards	For extinction: Use dry chemical, carbon dioxide, water spray or regular foam. For larger fires, use water spray, for or regular foam.
Special Remarks on Explosion Hazards	Thermal decomposition produces toxic fumes. Corrosive to most metals when dissolved in water.

Section 6. Accidental Release Measures

Leak and Spill Procedure	Eliminate or shut off all ignition sources. Avoid eye and skin contact. Place leaking containers in a well ventilated area. Contain spill to minimize contaminated area using an absorbent material. Place waste into a properly labeled container for disposal. For larger spills, dike the spill to minimize contamination and facilitate salvage or disposal. Avoid runoff into storm sewers and ditches which lead to natural waterways. If fire potential exists, blanket spill with foam or use water spray to disperse vapors.
---------------------------------	---

Section 7, Handling and Storage

Handling	Do not breath vapor or mist. Do not get into eyes, on skin or on clothing.
Storage	Containers should be stored in an upright position to prevent leakage. Store in a well ventilated area, away from sources of ignition and direct sunlight. Store at 59F to 86F (15C – 30C) Keep away from heat, sparks and flame.

Section 8. Exposure Controls / Personal Protection

Engineering Controls	Ventilation – General mechanical ventilation or fume hood.
Personal Protection	Safety glasses with slide shields must be worn at all times. Impervious protective clothing must be worn to prevent skin contact.
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 limits 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.
Hands	Neoprene, nitrile or equivalent.
Feet	
Personal Protection in Case of a Large Spill	Evacuate the area of all unnecessary personnel; eliminate any ignition sources until the area is determined to be free from explosion or fire hazards. Comply with Federal, State and local regulations on reporting releases.
Product Name	Exposure Limits
1)Formaldehyde	PEL -.75ppm STEL-2.0ppm, OSHA,ACGIH
2)Isopropyl Alcohol	PEL- 400ppm STEL- 500ppm, OSHA, ACGIH
3)Methyl Alcohol	PEL- 200ppm STEL- 250ppm, OSHA, ACGIH
4) Ethyl Alcol	PEL- 1000ppm , OSHA, ACGIH
Consult Local authorities before acceptable exposure limits.	

Section 9. Physical and Chemical Properties

Physical State and Appearance	Aqueous Solution.	Odor:	Mild odor.
Molecular Weight	Not applicable.	Taste:	Not available.
Molecular Formula	Not applicable.	Color:	Not available.
pH (1%/Water)	7.2		
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	Not available.
Physical Chemical Comments	Not available.

Section 10. Stability and Reactivity

Stability and Reactivity	Chemical Stability- YES
Conditions of Instability	Formaldehyde solutions are not stable in closed containers under normal temperatures and pressures. May oxidize slowly on exposure to air.
Incompatibility with Various Substances	<p>ACETYL BROMIDE: Violent reaction with formation of hydrogen bromide.</p> <p>BARRIUM PERCHLORATE: Distillation yields highly explosive alkyl perchlorate.</p> <p>BERYLLIUM HYDRIDE: Violent reaction, even at -196 °C.</p> <p>BROMINE: Vigorously exothermic reaction</p> <p>CALCIUM CARBIDE: Violent reaction</p> <p>CHLORINE: Possible ignition and explosion hazard.</p> <p>CHLOROFORM AND SODIUM HYDROXIDE: Explosive reaction</p> <p>DICHLOROMETHANE: Possible ignition and explosion.</p> <p>HYDROGEN PEROXIDE + WATER: Explosion hazard.</p> <p>IODINE + ETHANOL + MERCURIC OXIDE: Explosion hazard.</p> <p>LEAD PERCHLORATE: Explosion hazard.</p> <p>MAGNESIUM: Violent reaction.</p> <p>MAGNESIUM (POWDERED): Mixtures are capable of detonation.</p> <p>NITRIC ACID (concentrated): Mixtures of greater than 25% acid may decompose violently.</p> <p>NITROMETHANE: Violent reaction.</p> <p>OXIDIZERS: (STRONG): Fire and explosion hazard.</p> <p>PERCHLORIC ACID: Explosion hazard.</p> <p>Plastics, rubber, coatings: May be attacked</p> <p>POTASSIUM HYDROXIDE + CHLOROFORM: Exothermic reaction.</p> <p>SODIUM + CHLOROFORM: Possible explosion.</p> <p>SODIUM HYPOCHLORITE: Explosion hazard.</p> <p>SULFURIC ACID: Fire and explosion hazard.</p>
Hazardous Decomposition Products	Thermal decomposition products may include unburned formaldehyde, formic acid and other toxic products of organic substances.
Hazardous Polymerization	Not available.

Section 11. Toxicological Information

Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	
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	Not available.

Biodegradation

Special Remarks on The Products of Biodegradation Not available.

Section 13. Disposal Considerations

Waste Information Dispose of unused or spent product in accordance with local , state and referral regulations. The information offered herein is for the product as shipped. Use and or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the classification and the proper disposal method. This is a RCRA regulated hazardous waste due to ignitability D001.

Waste Stream Not available.

Consult your local or regional authorities.

Section 14. Transport Information

DOT Classification Not regulated by Ground Transportation (49 CFR)

Marine Pollutant Not available.

Hazardous Substances Reportable Quantity Not available.

Special Provisions for Transport Keep container tightly closed. Store away from heat, sparks, open flame.

TDG Classification TDG (Canada) Information not available.

ADR/RID Classification ADR (Europe) Information not available.

IMO/IMDG Classification IMDG Information not available.

ICAO/IATA Classification See IATA Regulations, material is regulated by IATA. UN 3334 Aviation Regulated Liquid, Formaldehyde

Section 15. Other Information

Label requirements

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

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.