

BBC Biochemical MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name:	Giemsa Stain Kit (Tissue) Solution A	Code:	5541
Supplier:	BBC Biochemical	MSDS#:	5541
Synonym:	None	Validation Date:	4-13-09
Trade Name:	None	Print Date:	4-13-09
Material Uses:	Histology Staining	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) Methanol	67-56-1	99	OSHA-PEL/TWA 200ppm OSHA-PEL/STEL 250ppm
2) Selected Buffers	N/A		

Section 3. Hazards Identification

Physical State and Appearance	Colorless liquid.
Emergency Overview	Not available.
Routes of Entry	Eye contact, inhalation, skin contact.
Potential Acute Health Effects	
Eyes	Irritation, may cause vision impairment or permanent damage.
Skin	Irritation. Can be toxic by skin absorption.
Inhalation	Affects central nervous system, especially the optic nerve.
Ingestion	May produce blindness (100 ml can be fatal).
Potential Chronic Health Effects	Chronic inhalation may also cause damage to liver, kidneys, and Central Nervous System.
Medical Conditions	Skin conditions, eye problems, or impaired liver or kidney function.
Aggravated by Overexposure	
Overexposure/Signs/Symptoms	

Section 4. First Aid Measures

Eye Contact	Immediately flush thoroughly with water for at least 15 minutes.
Skin Contact	Wash area thoroughly with copious amounts of water. Remove contaminated clothing and clean before wearing again.
Inhalation	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion	If conscious, drink water. Do not induce vomiting, seek medical attention.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Flammable liquid and vapor.
Auto-ignition Temperature	Not available.
Flash Points	52°F
Flammable Limits	Not available.
Products of Combustion	Not available.
Fire Hazards in Presence Of Various Substances	Not available.
Explosion Hazards in Presence of Various	Not available.

Substances	
Fire Fighting Media and Instructions	"Alcohol" foam, CO ₂ , water mist.
Protective Clothing (Fire)	Wear self-contained breathing apparatus and protective clothing.
Special Remarks on Fire & Explosion Hazards	Dangerous fire and explosive hazard. Closed containers may explode upon heating. Vapor can travel distances to ignition source and flash back. Hot organic chemical vapors or mists are susceptible to sudden spontaneous combustion when mixed with air. Ignition may occur at temperatures below published auto-ignition or ignitions temperatures. Ignition temperatures decrease with increasing vapor volume and vapor/air contact time and are influenced by pressure conditions, especially in process operating under vacuum if subjected to sudden ingress of air, or outside process equipment operating under elevated pressure if sudden escape of vapors or mists to the atmosphere occurs.

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.
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. Electrically ground all equipment handling this product. Material must be handled or transferred in an approved fume hood or with adequate ventilation.
Storage	Keep container tightly closed. Store away from heat, sparks, open flame, oxidizers.

Section 8. Exposure Controls / Personal Protection

Engineering Controls	Engineering and/or administrative controls should be implemented to reduce exposure.
Personal Protection	
Eyes	Safety glasses with side shields must be worn at all times.
Body	Impervious 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).
Hands	Butyl rubber, Vitron or equivalent.
Feet	Impervious footwear should be worn to prevent skin contact.
Personal Protection in Case of a Large Spill	See above.
Product Name	Exposure Limits
1)	
2)	
3)	
Consult Local authorities before acceptable exposure limits.	

Section 9. Physical and Chemical Properties

Physical State and Appearance	Colorless liquid.	Odor:	Alcoholic odor
Molecular Weight	Not applicable.	Taste:	Not available.
Molecular Formula	Not applicable.	Color:	Colorless.
pH (1%/Water)	Not applicable.		
Boiling/Condensation Point	65°C		
Melting/Freezing Point	Not applicable.		
Critical Temperature	Not applicable.		
Specific Gravity	0.791		
Vapor Pressure	(mm Hg): 97 20°C		
Vapor Density	Air=1; 1.1		
Volatility	99.9		
Odor Threshold	Not applicable.		
Evaporation Rate	5.91		
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	Heat, contact with ignition sources.
Incompatibility with Various Substances	Acids, oxidizers, reactive metals.
Hazardous Decomposition Products	CO _x , Formaldehyde.
Hazardous Polymerization	Does not occur.

Section 11. Toxicological Information

Toxicity to Animals	Methanol 67-56-1 LD50: orl-rat 5628 mg/kg; skn-rbt 15800 mg/kg LC50: ihl-rat 64000 ppm/4H LDLo: orl-hmn 143 mg/kg
Chronic Effects on Humans	
Other Toxic Effects on Humans	
Special Remarks on Toxicity to Animals	Tests on laboratory animals indicate methanol 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	UN1993, Flammable Liquids, n.o.s., (Ethanol), 3, II
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	UN1993, Flammable Liquids, n.o.s., (Ethanol), 3, II
ADR/RID Classification	ADR (Europe) Information not available.
IMO/IMDG Classification	IMDG Information not available.
ICAO/IATA Classification	See IATA Regulations, UN1993, Flammable Liquids, n.o.s., (Ethanol), 3, II

Section 15. Other Information

Label requirements

Hazardous Material Information System (U.S.A.)	Health	2	National Fire Protection Association (U.S.A.)	
	Fire Hazard	3		
	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.

BBC Biochemical MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name:	Giemsa Stain Kit (Tissue) - Solution B ₁	Code:	5542
Supplier:	BBC Biochemical	MSDS#:	5542
Synonym:	None	Validation Date:	4-13-09
Trade Name:	None	Print Date:	4-13-09
Material Uses:	Histology Staining	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	OSHA PEL/ TWA	/STEL
1) Methanol	67-56-1	NOTE: Percent composition withheld as a trade secret.	200 ppm	250 ppm
2) Glycerin	56-81-5		10 mg/m ³	
3) Giemsa Stain	51811-82-6			
4) Selected Romanowsky Stains	N/A			
5) Selected Additives	N/A			

Section 3. Hazards Identification

Physical State and Appearance	Dark blue liquid.
Emergency Overview	Not available.
Routes of Entry	Eye contact, inhalation, ingestion, skin contact.
Potential Acute Health Effects	
Eyes	Irritation, may cause vision impairment or permanent damage.
Skin	Irritation, can be toxic by skin absorption.
Inhalation	Toxic. Exposure may also cause damage to liver, kidneys and Central Nervous System, especially the optic nerve.
Ingestion	Toxic. May produce blindness, may be fatal.
Potential Chronic Health Effects	
Medical Conditions	Skin conditions, eye problems, or impaired liver or kidney function.
Aggravated by	
Overexposure	
Overexposure/	
Signs/Symptoms	

Section 4. First Aid Measures

Eye Contact	Immediately flush thoroughly with water for at least 15 minutes.
Skin Contact	Wash area thoroughly with copious amounts of water. Remove contaminated clothing and clean before wearing again.
Inhalation	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion	If conscious, drink water. Do not induce vomiting, seek medical attention.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Flammable liquid and vapor.
Auto-ignition Temperature	Not available.
Flash Points	52°F
Flammable Limits	Not available.

Products of Combustion	Not available.
Fire Hazards in Presence Of Various Substances	Not available.
Explosion Hazards in Presence of Various Substances	Not available.
Fire Fighting Media and Instructions	"Alcohol" foam, CO ₂ , Dry chemical
Protective Clothing (Fire)	Wear self-contained breathing apparatus and protective clothing.
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 its 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.
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. Electrically ground all equipment handling this product. Material must be handled or transferred in an approved fume hood or with adequate ventilation.
Storage	Keep container tightly closed. Store away from heat, sparks, open flame, oxidizers.

Section 8. Exposure Controls / Personal Protection

Engineering Controls	Engineering and/or administrative controls should be implemented to reduce exposure.
Personal Protection	
Eyes	Safety glasses with side shields must be worn at all times.
Body	Impervious 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).
Hands	Butyl rubber, Vitron or equivalent.
Feet	Impervious footwear should be worn to prevent skin contact.
Personal Protection in Case of a Large Spill	See above.
Product Name	Exposure Limits
1)	
2)	
3)	
Consult Local authorities before acceptable exposure limits.	

Section 9. Physical and Chemical Properties

Physical State and Appearance	Dark blue liquid.	Odor:	Alcoholic.
Molecular Weight	Not applicable.	Taste:	Not available.
Molecular Formula	Not applicable.	Color:	Dark blue.
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	Not available.
Incompatibility with Various Substances	Acids, oxidizers, reactive metals.
Hazardous Decomposition Products	CO _x , Formaldehyde.
Hazardous Polymerization	Does not occur.

Section 11. Toxicological Information

Toxicity to Animals	Methanol 67-56-1 LD50: orl-rat 5628 mg/kg; skn-rbt 15800 mg/kg LC50: ihl-rat 64000 ppm/4H LDLo: 143 mg/kg
Chronic Effects on Humans	
Other Toxic Effects on Humans	
Special Remarks on Toxicity to Animals	Tests on laboratory animals indicate methanol 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	UN1230, Methanol, 3, II
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Methanol 67-56-1 Glycerin 56-81-5
Special Provisions for Transport	Not applicable.
TDG Classification	UN1230, Methanol, 3, II
ADR/RID Classification	ADR (Europe) Information not available.
IMO/IMDG Classification	IMDG Information not available.
ICAO/IATA Classification	See IATA Regulations, UN1230, Methanol, 3, II

Section 15. Other Information

Label requirements

Hazardous Material Information System (U.S.A.)	Health	2	National Fire Protection Association (U.S.A.)	
	Fire Hazard	3		
	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.

BBC Biochemical

MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name:	Giemsa Stain Kit (TISSUE) - Solution B ₂	Code:	5543
Supplier:	BBC Biochemical	MSDS#:	5543
Synonym:	None	Validation Date:	4-13-09
Trade Name:	None	Print Date:	4-13-09
Material Uses:	Histology Staining	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	OSHA PEL/TWA	/STEL
1) Distilled Water	7732-18-5	NOTE: Percent composition withheld as a trade secret.		
2) Selected Buffers	N/A			

Section 3. Hazards Identification

Physical State and Appearance	Colorless liquid.
Emergency Overview	Not available.
Routes of Entry	Eye contact, inhalation, ingestion, skin contact.
Potential Acute Health Effects	
Eyes	Irritation, may cause vision impairment or permanent damage.
Skin	Irritation. Can be toxic by skin absorption.
Inhalation	Affects central nervous system, especially the optic nerve.
Ingestion	May produce blindness.
Potential Chronic Health Effects	Chronic exposure may also cause damage to the liver, kidneys and Central Nervous System.
Medical Conditions Aggravated by Overexposure/Overexposure/Signs/Symptoms	Skin conditions, eye problems, or impaired liver or kidney function.

Section 4. First Aid Measures

Eye Contact	Immediately flush thoroughly with water for at least 15 minutes.
Skin Contact	Wash area thoroughly with copious amounts of water. Remove contaminated clothing and clean before wearing again.
Inhalation	Remove to fresh air; give artificial respirations if breathing has stopped.
Ingestion	If conscious, drink water. Do not induce vomiting, seek medical attention.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	Flammable liquid.
Auto-ignition Temperature	Not available.
Flash Points	N/A
Flammable Limits	Not available.
Products of Combustion	Not available.
Fire Hazards in Presence Of Various Substances	Not available.
Explosion Hazards in	Not available.

Presence of Various Substances**Fire Fighting Media and Instructions****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 its 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.

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. Electrically ground all equipment handling this product. Material must be handled or transferred in an approved fume hood or with adequate ventilation.

Storage Keep container tightly closed. Store away from heat, sparks, open flame, oxidizers.

Section 8. Exposure Controls / Personal Protection

Engineering Controls Engineering and/or administrative controls should be implemented to reduce exposure.

Personal Protection

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

Body Impervious 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).

Hands Butyl rubber, Vitron or equivalent.

Feet Impervious footwear should be worn to prevent skin contact.

Personal Protection in

Case of a Large Spill See above.

Product Name **Exposure Limits**

- 1)
- 2)
- 3)

Consult Local authorities before acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Colorless liquid.	Odor:	Not available.
Molecular Weight	Not applicable.	Taste:	Not available.
Molecular Formula	Not applicable.	Color:	None.
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	97		
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.
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Section 10. Stability and Reactivity

Stability and Reactivity	Stable.
Conditions of Instability	Heat, contact with ignition sources.
Incompatibility with Various Substances	Oxidizers.
Hazardous Decomposition Products	CO ₂
Hazardous Polymerization	Does not occur.

Section 11. Toxicological Information

Toxicity to Animals	Not available.
Chronic Effects on Humans	
Other Toxic Effects on Humans	
Special Remarks on Toxicity to Animals	Tests on laboratory animals indicate methanol 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

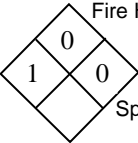
Waste Information	Not available.
Waste Stream	Not available.
Consult your local or regional authorities.	

Section 14. Transport Information

DOT Classification	Not hazardous.
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	Not controlled under TDG (Canada).
ADR/RID Classification	Not controlled under ADR (Europe).
IMO/IMDG Classification	Not controlled under IMDG.
ICAO/IATA Classification	Not controlled under IATA.

Section 15. Other Information

Label requirements

Hazardous Material Information System (U.S.A.)	Health	1	National Fire Protection Association (U.S.A.)	
	Fire Hazard	0		
	Reactivity	0		
	Personal Protection			
References				
Other Special Considerations				
Notice to Reader <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>				

BBC Biochemical

MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name:	Giemsa Stain Kit (TISSUE) Solution C	Code:	5544
Supplier:	BBC Biochemical	MSDS#:	5544
Synonym:	None	Validation Date:	4-13-09
Trade Name:	Not Available	Print Date:	4-13-09
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	
2) Glacial Acetic Acid	64-19-7	withheld as a trade secret.	

Section 3. Hazards Identification

Physical State and Appearance	Colorless liquid, slight vinegar odor.
Emergency Overview	Not available.
Routes of Entry	Eye contact, inhalation, ingestion, skin contact.
Potential Acute Health Effects	
Eyes	May cause irritation with redness, pain, and possibly corneal damage.
Skin	Causes severe irritation and burns with redness and pain.
Inhalation	May cause irritation of the mucous membranes with sore throat and coughing.
Ingestion	Irritant to the gastrointestinal system.
Potential Chronic Health Effects	
Medical Conditions Aggravated by Overexposure/Overexposure/Signs/Symptoms	Corneal disease, glaucoma, or chronic respiratory diseases.

Section 4. First Aid Measures

Eye Contact	Immediately flush eyes thoroughly with water for at least 15 minutes.
Skin Contact	Call a physician. Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Thoroughly clean clothing and shoes before reuse.
Inhalation	Remove to fresh air, give artificial respiration if breathing has stopped.
Ingestion	Get immediate medical attention; if conscious, give water freely. Do not induce vomiting.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

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

Fire Fighting Media and Instructions Wear self-contained breathing apparatus.

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.

Large Spill and Leak Same as above.

Section 7, Handling and Storage

Handling Avoid prolonged, or repeated skin contact. Do not get in eyes. Wash thoroughly after handling. Do not take internally. Eye wash and safety equipment should be available.

Storage Keep container closed. Store in cool, dry, well-ventilated place away from incompatible materials. Wash thoroughly after handling.

Section 8. Exposure Controls / Personal Protection

Engineering Controls

Personal Protection

- Eyes** Safety glasses with side shields should be worn at all times.
- Body** Impervious clothing should be worn to prevent skin contact.
- Respiratory** Any dust or mist respirator. If workplace exposure limit(s) of product or any component is exceeded, a NIOSH/MSHA approved air respirator is advised in absence of proper environmental control. Material should be handled or transferred in an approved fume hood or with adequate ventilation.
- Hands** Rubber or equivalent gloves should be worn to prevent skin contact.
- Feet** Data not available.

Personal Protection in

Case of a Large Spill Impervious clothing, rubber or equivalent gloves, safety glasses with side shields and respirator.

Product Name **Exposure Limits**

1) Data not available.

2)

3)

Consult Local authorities before acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance Colorless liquid. **Odor:** Slight vinegar odor.

Molecular Weight Not applicable. **Taste:** Not available.

Molecular Formula Not applicable. **Color:** Colorless.

pH (1%/Water) Not applicable.

Boiling/Condensation Point 100C.

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 Soluble in water.

Physical Chemical Comments Not available.

Physical Chemical Comments

Section 10. Stability and Reactivity

Stability and Reactivity Stable.

Conditions of Instability	None.
Incompatibility with Various Substances	Acids, corrosive to metals and alloys.
Hazardous Decomposition Products	Corrosive vapors of ammonia and toxic oxides or nitrogen. HCl fumes, chlorine.
Hazardous Polymerization	Does not occur.

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	Not available.
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 Mobility	Not available.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on The Products of Biodegradation	Not available.

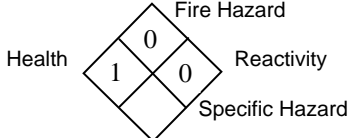
Section 13. Disposal Considerations

Waste Information	Not available.
Waste Stream	Not available.
Consult your local or regional authorities. Always contact a permitted waste disposer (TSD) to assure compliance with all current local, state and federal regulations.	

Section 14. Transport Information

DOT Classification	Not hazardous.
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	Not controlled under TDG (Canada).
ADR/RID Classification	Not controlled under ADR (Europe).
IMO/IMDG Classification	Not controlled under IMDG.
ICAO/IATA Classification	Not controlled under IATA.

Section 15. Other Information

Label requirements			
Hazardous Material Information System (U.S.A.)	Health	1	National Fire Protection Association (U.S.A.)
	Fire Hazard	0	
	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.

BBC Biochemical

MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Information

Common Name: Giemsa Stain Kit (Tissue) Solution MM	Code: 5545
Supplier: BBC Biochemical	MSDS#: 5545
Synonym:	Validation Date: 4-13-09
Trade Name: Mounting Medium	Print Date: 4-13-09
Material Uses: Histologic Staining	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	With-held as a trade secret	
2) Sucrose	57-50-1	With-held as a trade secret	
3) Select Buffers		With-held as a trade secret	

Section 3. Hazards Identification

Physical State and Appearance	Clear liquid with a sweet odor.
Emergency Overview	Not available.
Routes of Entry	Eye contact, inhalation, ingestion, and 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	Not applicable.
Medical Conditions Aggravated by Overexposure	Respiratory conditions.
Overexposure/Signs/Symptoms	May cause cancer of the lungs, nasopharynx and oropharynx, and nasal passages

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).
Inhalation	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion	If conscious, drink water. Do not induce vomiting, seek 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 Presence of Various Substances	Not available.
Fire Fighting Media and Instructions	CO ₂ , foam, water.
Protective Clothing (Fire)	
Special Remarks on Fire Hazards	Fire fighters should use self-contained breathing apparatus and protective clothing.
Special Remarks on Explosion Hazards	Thermal decomposition produces toxic fumes. Corrosive to most metals when dissolved in water.

Section 6. Accidental Release Measures

Small Spill and Leak	Evacuate the area of all unnecessary personnel. Wear suitable protective equipment listed under section VII. Eliminate all sources of ignition 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. Waste disposal methods: Incineration, fuels blending or recycle. Contact your local permitted waste disposal site (TSD) for permissible treatment sites. 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 breath vapors or mist. Do not get in eyes, on skin, or on clothing.
Storage	Store and use in areas away from heat, sparks, and open flame. Keep container tightly closed.

Section 8. Exposure Controls / Personal Protection

Engineering Controls	
Personal Protection	
Eyes	Safety glasses with approved 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 or 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 with adequate ventilation.
Hands	Use gloves that are Neoprene, Nitrile or equivalent.
Feet	
Personal Protection in Case of a Large Spill	
Product Name	Exposure Limits
1)	
2)	
3)	
Consult Local authorities before acceptable exposure limits.	

Section 9. Physical and Chemical Properties

Physical State and Appearance	Clear liquid.	Odor:	Sweet odor.
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	Ignition sources. Contact with HCl may cause formation of the potent carcinogen, bischloromethyl ether.
Incompatibility with Various Substances	Acids, oxidizers, strong alkalis.
Hazardous Decomposition Products	Co _x
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	Not available.
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	Not hazardous.
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	Not controlled under TDG (Canada).
ADR/RID Classification	Not controlled under ADR (Europe).
IMO/IMDG Classification	Not controlled under IMDG.
ICAO/IATA Classification	Not controlled under IATA.

Section 15. Other Information

Label requirements	
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Hazardous Material Information System (U.S.A.)	Health	1	National Fire Protection Association (U.S.A.)	
	Fire Hazard	0		
	Reactivity	1		
	Personal Protection			
References				
Other Special Considerations				
Notice to Reader				
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