

## BBC Biochemical

## MATERIAL SAFETY DATA SHEET

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

Common Name: Wright's Stain Kit – Solution A	Code: 5720
Supplier: BBC Biochemical	MSDS#: 5720
Synonym:	Validation Date: 5-7-09
Trade Name: Wright's Stain Kit	Print Date: 5-7-09
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 10mg/m <sup>3</sup>	250 ppm
2) Glycerin	56-81-5			
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	
<b>Eyes</b>	Irritation, may cause vision impairment or permanent damage.
<b>Skin</b>	Irritation, can be toxic by skin absorption.
<b>Inhalation</b>	Toxic, exposure may also cause damage to liver, kidneys and central nervous system, especially the optic nerve.
<b>Ingestion</b>	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	Get immediate medical attention. If medical attention is not immediately available give water to drink. Do not induce vomiting unless directed to do so by medical personnel.
Notes to Physician	Not available.

**Section 5. Fire Fighting Measures**

Flammability of the Product	Flammable liquid.
Auto-ignition Temperature	Not available.
Flash Points	52°F
Flammable Limits	Not available.
Products of Combustion	CO <sub>x</sub> , Formaldehyde

<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>	"Alcohol" foam, CO <sub>2</sub> , Dry Chemical
<b>Protective Clothing (Fire)</b>	Wear self-contained breathing apparatus and protective clothing.
<b>Special Remarks on Fire Hazards</b>	Incompatible materials: Acids, oxidizers, reactive metals.
<b>Special Remarks on Explosion Hazards</b>	

### Section 6. Accidental Release Measures

<b>Small Spill and Leak</b>	Clean up promptly with small absorbent cloth, if it can be done without risk.
<b>Large Spill and Leak</b>	Evacuate the area of all unnecessary personnel. Wear suitable protective equipment listed under section VII. 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.

### Section 7, Handling and Storage

<b>Handling</b>	Do not breath vapor or mist. Do not get in eyes, on skin, or on clothing. Electrically ground all equipment when handling this product.
<b>Storage</b>	Keep container tightly closed. Store away from heat, sparks, open flame, and oxidizers.

### Section 8. Exposure Controls / Personal Protection

<b>Engineering Controls</b>	
<b>Personal Protection</b>	
<b>Eyes</b>	Safety glasses with side shields must be worn at all times.
<b>Body</b>	Impervious protective clothing must be worn to prevent skin contact.
<b>Respiratory</b>	If workspace exposure limit(s) of product or any component is exceeded (see TVL/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).
<b>Hands</b>	Protective gloves: Butyl Rubber, Vitron or equivalent.
<b>Feet</b>	Not available.
<b>Personal Protection in Case of a Large Spill</b>	
Same as above.	
<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>	Dark blue liquid.	<b>Odor:</b>	Alcoholic.
<b>Molecular Weight</b>	Not applicable.	<b>Taste:</b>	Not available.
<b>Molecular Formula</b>	Not applicable.	<b>Color:</b>	Blue.
<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>	Miscible in water.		
<b>Physical Chemical</b>	Not available.		

## Comments

**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 <sub>x</sub> , Formaldehyde
Hazardous Polymerization	Does not occur.

**Section 11. Toxicological Information**

Toxicity to Animals	LD50: orl-rat: 5628mg/kg – skn-rbt: 15800mg/kg LC50: ihl-rat: 64000ppm/4H
Chronic Effects on Humans	
Other Toxic Effects on Humans	
Special Remarks on Toxicity to Animals	Toxicological findings: 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	Incineration, fuels blending or recycle. Contact your local permitted waste disposal site (TSD) for permissible treatment sites.
Waste Stream	ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.
Consult your local or regional authorities.	

**Section 14. Transport Information**

DOT Classification	Methanol Solution, UN1230, Methanol, 3, II
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not applicable.
TDG Classification	Methanol Solution, 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, Methanol Solution, UN1230, Methanol, 3, II

**Section 15. Other Information**

Label requirements	Flammable			
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: Wright's Stain Kit – Solution B	Code: 5750
Supplier: BBC Biochemical	MSDS#: 5750
Synonym: None	Validation Date: 5-7-09
Trade Name: None	Print Date: 5-7-09
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	<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#	% by Weight	OSHA PEL/TWA	/STEL
1) Distilled Water	7732-18-5	NOTE: Percent composition withheld as a trade secret.	None established	
2) Selected Buffers	N/A		None established	

**Section 3. Hazards Identification**

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

**Section 4. First Aid Measures**

<b>Eye Contact</b>	Immediately flush thoroughly with water for at least 15 minutes.
<b>Skin Contact</b>	Wash area thoroughly with copious amounts of water. Remove contaminated clothing and clean before wearing again.
<b>Inhalation</b>	Remove to fresh air; give artificial respirations if breathing has stopped.
<b>Ingestion</b>	Get immediate medical attention. If medical attention is not immediately available, dilute with water. Do not induce vomiting unless directed to do so by medical personnel.
<b>Notes to Physician</b>	Not available.

**Section 5. Fire Fighting Measures**

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

<b>Physical State and Appearance</b>	Colorless liquid.	<b>Odor:</b>	Not available.
<b>Molecular Weight</b>	Not applicable.	<b>Taste:</b>	Not available.
<b>Molecular Formula</b>	Not applicable.	<b>Color:</b>	None.
<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>	97		
<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>	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 <sub>2</sub>
Hazardous Polymerization	Does not occur.

### Section 11. Toxicological Information

Toxicity to Animals	LD50: None established LC50: None established
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.
BOD5 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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<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>	0		
	<b>Reactivity</b>	0		
	<b>Personal Protection</b>			
<b>References</b>				
<b>Other Special Considerations</b>				
<b>Notice to Reader</b> <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: Wright's Stain Kit – Solution C	Code: 5752
Supplier: BBC Biochemical	MSDS#: 5752
Synonym: None	Validation Date: 5-7-09
Trade Name: None	Print Date: 5-7-09
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	<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#	% by Weight	OSHA PEL/TWA	/STEL
1) Distilled Water	7732-18-5	NOTE: Percent composition withheld as a trade secret.	None established	
2) Selected Buffers	N/A		None established	

**Section 3. Hazards Identification**

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

**Section 4. First Aid Measures**

<b>Eye Contact</b>	Immediately flush thoroughly with water for at least 15 minutes.
<b>Skin Contact</b>	Wash area thoroughly with copious amounts of water. Remove contaminated clothing and clean before wearing again.
<b>Inhalation</b>	Remove to fresh air; give artificial respirations if breathing has stopped.
<b>Ingestion</b>	Get immediate medical attention. If medical attention is not immediately available, give water to drink. Do not induce vomiting unless directed to do so by medical personnel.
<b>Notes to Physician</b>	Not available.

**Section 5. Fire Fighting Measures**

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

<b>Physical State and Appearance</b>	Colorless liquid.	<b>Odor:</b>	Not available.
<b>Molecular Weight</b>	Not applicable.	<b>Taste:</b>	Not available.
<b>Molecular Formula</b>	Not applicable.	<b>Color:</b>	None.
<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>	97		
<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>	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 <sub>2</sub>
Hazardous Polymerization	Does not occur.

### Section 11. Toxicological Information

Toxicity to Animals	LD50: None established LC50: None established
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.
BOD5 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

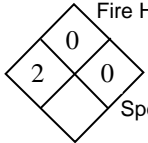
Waste Information	Not available.
Waste Stream	Not available.
Consult your local or regional authorities.	

### 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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<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>	0		
	<b>Reactivity</b>	0		
	<b>Personal Protection</b>			
<b>References</b>				
<b>Other Special Considerations</b>				
<b>Notice to Reader</b> <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>				