



Date Issued: February 16, 2011  
Supersedes Date: 1/24/2011

## MATERIAL SAFETY DATA SHEET

### Section 1: Chemical Product and Company Identification

Cat#: SPS-MG-A  
Part Name: DIFFERENTIAL QUIK STAIN (MODIFIED GIEMSA) SOLUTION 'A' FIXATIVE  
Supplier: Triangle Biomedical Sciences, Inc. (TBS)  
3014 Croasdaile Drive  
Durham, NC 27705  
Phone: 919-384-9393

Emergency Notification: ChemTel Inc. 1-888-255-3924 International +01-813-248-0585

### Section 2: Composition/ Information on Ingredients

Item#	Name	CAS#	% in product
1	Formaldehyde	000050000	3.7
2	Methanol	000067561	90
3	Water	007732185	6

#### OSHA (ACGIH) Exposure Limits

CAS#	Name	IDLH	TWA		STEL		CEILING	
			ppm	mg/m3	ppm	mg/m3	ppm	mg/m3
000050000	Formaldehyde	20	Not classifi	--	2/15 min	NE	--	--
OS								
ACGIH			--	--	--	--	0.3 c	0.37
000067561	Methanol	6,000	ACGIH;CA	260	--	--	--	--
OS								
ACGIH			200	262	250	250	--	--
007732185	Water	NE	NE	NE	NE	NE	NE	NE
OS								
ACGIH			NE	NE	NE	NE	NE	NE

### Section 3: Hazards Identification

Causes skin, eye and respiratory tract irritation.

Flammable liquid and vapor.

Hazard Ratings:

These ratings are TBS' own assessments of the properties of the material using the ANSI/NFPA 704 Standard. Additional information can be found by consulting in the NFPA published ratings lists (List 325 and List 49).

If no data is listed the information is not available.

Health	Flammability	Reactivity
1	3	0

NA = not applicable

NL = not listed

NE = not established

NNR = not normally required

**Section 4: First Aid Measures**

Flush eyes with flowing water for at least 15 minutes.

If swallowed, wash out mouth with water if person is conscious.

Remove to fresh air.

Wash skin with deluge of water for at least 15 minutes.

**Section 5: Fire Fighting Measures**

Flash point, deg F.: 51

Method: TCC

UEL: 36 LEL: 6

Autoignition temperature, deg. F.: 725 F

Flammability Classification: IB

Flame Propagation Rate: nap

Hazardous Combustion Products: nap

**Section 6: Accidental Release Measures**

Any information listed below is to be considered in addition to internal guidelines for isolation of spill, containment of spill, removal of ignition sources from immediate area, and collection for disposal of spill by trained, properly protected clean up personnel.

Absorb liquids on absorbent material.

Protect personnel from exposure.

Remove ignition sources.

Ventilate the area.

**Section 7: Handling and Storage**

Store at room temp

**Section 8: Exposure Controls/ Personal Protection**

The use of eye protection in the form of safety glasses with side shields and the use of skin protection for hands in the form of gloves are considered minimum and non-discretionary in work places and laboratories. Any recommended personal protection equipment or environmental equipment is to be considered as additional to safety glasses and gloves. Use chemical splash goggles and face shield.

Use latex or equivalent gloves.

Use process enclosures, local exhaust ventilation, or other engineering controls.

**Section 9: Physical and Chemical Properties**

Formula: CH<sub>3</sub>OH

vapor pressure: 138 at 25 C.

Formula Weight: 32.05

vapor density: 1.1

boiling point: 148

Specific gravity: 0.791

melting point: nap

ph: nap

solubility: 100%

appearance: colorless liquid

**Section 10: Stability and Reactivity**

Chemical Stability: stable

Conditions to Avoid: heat, flame

Incompatibility with other materials: strong oxidizers

Hazardous Decomposition Products: no data

Hazardous Polymerization: will not occur

**Section 11: Toxicological Information**

Acute Data: LD<sub>50</sub> oral rat 5628 mg/Kg; LC<sub>50</sub> inhalation rat 64000 ppm; LD<sub>50</sub> skin rabbit 15800 ppm

Subchronic data: no data

**Section 12: Ecological Information**

no data

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NA = not applicable

NL = not listed

NE = not established

NNR = not normally required

**Section 13: Disposal Considerations**

The following chart lists the status of the chemical and its components in reference to 40 CFR Part 261.33. If the product is listed by code number the substance may be subject to special federal and state disposal regulations. If no codes are listed the material must be disposed in compliance

with all Federal, State and Local Regulations.

CAS#	Waste Code	Regulated Name
000050000	U122	Formaldehyde
000067561	U154	Methyl alcohol
007732185	not listed	not listed

**Section 14: Transportation Data**

Refer to bill of lading or container label for DOT or other transportation hazard classification , if any.

**UN Number:** 1987

**Section 15: Regulatory Information**

Prop 65 - Column A identifies those items which are known to the State of California to cause cancer. Column B identified items which are known to the State of California to cause reproductive toxicity.

CAS#	Column A	Column B
000050000	Yes	no
000067561	no	no
007732185	no	no

State Regulatory Information :If a CAS# is listed below this material is subject to the listed state right-to-know requirements.

CAS#	FL	MA	MI	MN	NJ	PA
000050000	FL	MA	MI	MN	NJ	PA
WA						
000067561	FL	MA	MN	NJ	PA	WA
007732185	not listed					

SARA Toxic Release Chemicals(as defined in Section 313 of SARA Title III)

This list identifies the toxic chemicals, including their de minimis concentrations for which reporting is required under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA). The list is also referred to as the Toxics Release Inventory (TRI) List.

CAS#	Regulated name	de minimis conc. %	Rep. Thres.
000050000	Formaldehyde	0.1	not listed
000067561	Methanol	1.0	not listed
007732185	not listed	not listed	not listed

SARA Extremely Hazardous Substances and TPQs

This list includes hazardous chemicals as defined in 29 CFR 1910.1200(c); and extremely hazardous substances regulated under Section 302 of SARA Title III with their TPQs (in pounds), as listed in 40 CFR 355, Appendices A and B.

CAS#	Regulated name	TPQ (pounds)	EHS-RQ(pounds)
000050000	Formaldehyde	500	100
000067561	not listed	not listed	not listed
007732185	not listed	not listed	not listed

CERCLA

The hazardous substances, and their reportable quantities (RQs) are listed in the federal regulations at 40 CFR Part 302, Table 302.4. Release of a CERCLA hazardous substance in an amount equal to or greater than its RQ, in any 24-hour period, must be reported to the National Response Center at (800) 424-8802.

NA = not applicable

NL = not listed

NE = not established

NNR = not normally required

<b>CAS#</b>	<b>Regulated name</b>	<b>RQ (pounds)</b>
000050000	Not listed	Not listed
000067561	Not listed	Not listed
007732185	Not listed	Not listed

**Section 16: Other Information**

**TRIANGLE BIOMEDICAL SCIENCES (TBS)** provides the information contained herein in good faith, but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. TBS makes no representation or warranties, either expressed or implied of merchantability, fitness for particular purposes with respect to the information set forth herein or to which the information refers. Accordingly, TBS will not be responsible for damages resulting from the use of or reliance upon this information.

**END OF MSDS**

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NA = not applicable

NL = not listed

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NNR = not normally required



Date Issued: February 16, 2011  
 Supersedes Date: 11/29/2011

## MATERIAL SAFETY DATA SHEET

### Section 1: Chemical Product and Company Identification

Cat#: SPS-MG-B  
 Part Name: FLASH-DIP FNA/H. PY- \*LORI, SOLUTION "B" BLUE/AZURE DYE  
 Supplier: Triangle Biomedical Sciences, Inc. (TBS)  
 3014 Croasdaile Drive  
 Durham, NC 27705  
 Phone: 919-384-9393

Emergency Notification: ChemTel Inc. 1-888-255-3924 International +01-813-248-0585

### Section 2: Composition/ Information on Ingredients

Item#	Name	CAS#	% in product
1	Azure II	037247102	0.1
2	Phenothiazin-5-ium, 3,7-bis(dimethylamino)-, chloride	000061734	0.1
3	Sodium phosphate monobasic monohydrate	010049215	1
4	Sodium phosphate, dibasic, anhydrous	007558794	1
5	Water	007732185	98

### OSHA (ACGIH) Exposure Limits

	IDLH:	TWA		STEL		CEILING	
		ppm	mg/m3	ppm	mg/m3	ppm	mg/m3
CAS#: 000061734	NE						
OS		NE	NE	NE	NE	NE	NE
ACGIH		NE	NE	NE	NE	NE	NE
CAS#: 007558794	NE						
OS		NE	NE	NE	NE	NE	NE
ACGIH		NE	NE	NE	NE	NE	NE
CAS#: 007732185	NE						
OS		NE	NE	NE	NE	NE	NE
ACGIH		NE	NE	NE	NE	NE	NE
CAS#: 010049215	NE						
OS		NE	NE	NE	NE	NE	NE
ACGIH		NE	NE	NE	NE	NE	NE
CAS#: 037247102	NE						
OS		NE	NE	NE	NE	NE	NE
ACGIH		NE	NE	NE	NE	NE	NE

NA = not applicable      NL = not listed      NE = not established      NNR = not normally required

**Section 3: Hazards Identification**

May be irritant if swallowed.

May cause skin, eye and respiratory tract irritation.

Hazard Ratings:

These ratings are TBS' Inc. own assessments of the properties of the material using the ANSI/NFPA 704 Standard. Additional information can be found by consulting in the NFPA published ratings lists (List 325 and List 49).

If no data is listed the information is not available.

Health	Flammability	Reactivity
1	0	0

**Section 4: First Aid Measures**

Flush eyes with flowing water for at least 15 minutes.

If breathing is difficult, contact emergency personnel.

If swallowed, wash out mouth with water if person is conscious.

Remove to fresh air.

Wash skin with deluge of water for at least 15 minutes.

**Section 5: Fire Fighting Measures**

Flash point, deg F.: no data

Method: no data

UEL: no data LEL: no data

Autoignition temperature, deg. F.: no data

Flammability Classification: no data

Flame Propagation Rate: no data

Hazardous Combustion Products: no data

**Section 6: Accidental Release Measures**

Any information listed below is to be considered in addition to internal guidelines for isolation of spill, containment of spill, removal of ignition sources from immediate area, and collection for disposal of spill by trained, properly protected clean up personnel.

Absorb liquids on absorbent material.

Contain spilled liquids.

Use appropriate personal protective equipment.

**Section 7: Handling and Storage**

Store at 4 deg. C.

**Section 8: Exposure Controls/ Personal Protection**

The use of eye protection in the form of safety glasses with side shields and the use of skin protection for hands in the form of gloves are considered minimum and non-discretionary in work places and laboratories. Any recommended personal protection equipment or environmental equipment is to be considered as additional to safety glasses and gloves.

Use chemical splash goggles and face shield.

Use latex or equivalent gloves.

**Section 9: Physical and Chemical Properties**

Formula:	mixture	vapor pressure:	no data
Formula Weight:	mixture	vapor density:	no data
boiling point:	100 C	Specific gravity:	1.01
melting point:	no data	ph:	18 mm Hg
solubility:	miscible	appearance:	liquid

NA = not applicable

NL = not listed

NE = not established

NNR = not normally required

**Section 10: Stability and Reactivity**

Chemical Stability	stable
Conditions to Avoid:	no data
Incompatibility with other materials:	oxidizers
Hazardous Decomposition Products:	oxides of carbon
Hazardous Polymerization:	will not occur

**Section 11: Toxicological Information**

Acute Data: no data  
Subchronic data: no data

**Section 12: Ecological Information**

no data

**Section 13: Disposal Considerations**

The following chart lists the status of the chemical and its components in reference to 40 CFR Part 261.33. If the product is listed by code number the substance may be subject to special federal and state disposal regulations. If no codes are listed the material must be disposed in compliance with all Federal, State and Local Regulations.

CAS#	Waste Code	Regulated Name
000061734	not listed	not listed
007558794	not listed	not listed
007732185	not listed	not listed
010049215	not listed	not listed
037247102	not listed	not listed

**Section 14: Transportation Data**

Refer to bill of lading or container label for DOT or other transportation hazard classification , if any.  
**UN Number:** 1987

**Section 15: Regulatory Information**

Prop 65 - Column A identifies those items which are known to the State of California to cause cancer. Column B identified items which are known to the State of California to cause reproductive toxicity.

CAS#	Column A	Column B
000061734	no	no
007558794	no	no
007732185	no	no
010049215	no	no
037247102	no	no

State Regulatory Information :If a CAS# is listed below this material is subject to the listed state right-to-know requirements.

CAS#		
000061734	not listed	
007558794	MA	PA
007732185	not listed	
010049215	not listed	
037247102	not listed	

SARA Toxic Release Chemicals(as defined in Section 313 of SARA Title III)

This list identifies the toxic chemicals, including their de minimis concentrations for which reporting is required under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA). The list is also referred to as the Toxics Release Inventory (TRI) List.

NA = not applicable

NL = not listed

NE = not established

NNR = not normally required

<b>CAS#</b>	<b>Regulated name</b>	<b>de minimis conc. %</b>	<b>Rep. Thres.</b>
000061734	not listed	not listed	not listed
007558794	not listed	not listed	not listed
007732185	not listed	not listed	not listed
010049215	not listed	not listed	not listed
037247102	not listed	not listed	not listed

## SARA Extremely Hazardous Substances and TPQs

This list includes hazardous chemicals as defined in 29 CFR 1910.1200(c); and extremely hazardous substances regulated under Section 302 of SARA Title III with their TPQs (in pounds), as listed in 40 CFR 355, Appendices A and B.

<b>CAS#</b>	<b>Regulated name</b>	<b>TPQ (pounds)</b>	<b>EHS-RQ(pounds)</b>
000061734	not listed	not listed	not listed
007558794	not listed	not listed	not listed
007732185	not listed	not listed	not listed
010049215	not listed	not listed	not listed
037247102	not listed	not listed	not listed

## CERCLA

The hazardous substances, and their reportable quantities (RQs) are listed in the federal regulations at 40 CFR Part 302, Table 302.4. Release of a CERCLA hazardous substance in an amount equal to or greater than its RQ, in any 24-hour period, must be reported to the National Response Center at (800) 424-8802.

<b>CAS#</b>	<b>Regulated name</b>	<b>RQ (pounds)</b>
000061734	Not listed	Not listed
007558794	Not listed	Not listed
007732185	Not listed	Not listed
010049215	Not listed	Not listed
037247102	Not listed	Not listed

NA = not applicable

NL = not listed

NE = not established

NNR = not normally required

**Section 16: Other Information**

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**END OF MSDS**

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NA = not applicable

NL = not listed

NE = not established

NNR = not normally required



Date Issued: February 16, 2011  
Supersedes Date: 11/29/2010

## MATERIAL SAFETY DATA SHEET

### Section 1: Chemical Product and Company Identification

Cat#: SPS-MG-C  
Part Name: FLASH-DIP FNA/H. PY- \*LORI, SOLUTION "C" XANTHENE DYE  
Supplier: Triangle Biomedical Sciences, Inc. (TBS)  
3014 Croasdaile Drive  
Durham, NC 27705  
Phone: 919-384-9393

Emergency Notification: ChemTel Inc. 1-888-255-3924 International +01-813-248-0585

### Section 2: Composition/ Information on Ingredients

Item#	Name	CAS#	%in product
1	Eosin Y	017372871	0.1
2	Sodium phosphate monobasic monohydrate	010049215	0.7
3	Sodium phosphate, dibasic, anhydrous	007558794	0.3
4	Water	007732185	98.9

### OSHA (ACGIH) Exposure Limits

CAS#	IDLH	TWA		STEL		CEILING	
		ppm	mg/m3	ppm	mg/m3	ppm	mg/m3
007558794	NE	NE	NE	NE	NE	NE	NE
OS		NE	NE	NE	NE	NE	NE
ACGIH		NE	NE	NE	NE	NE	NE
007732185	NE	NE	NE	NE	NE	NE	NE
OS		NE	NE	NE	NE	NE	NE
ACGIH		NE	NE	NE	NE	NE	NE
010049215	NE	NE	NE	NE	NE	NE	NE
OS		NE	NE	NE	NE	NE	NE
ACGIH		NE	NE	NE	NE	NE	NE
017372871	NE	NE	NE	NE	NE	NE	NE
OS		NE	NE	NE	NE	NE	NE
ACGIH		NE	NE	NE	NE	NE	NE

### Section 3: Hazards Identification

May be irritant if swallowed.

May cause skin, eye and respiratory tract irritation.

Hazard Ratings:

These ratings are TBS' Inc. own assessments of the properties of the material using the ANSI/NFPA 704 Standard.

Additional information can be found by consulting in the NFPA published ratings lists (List 325 and List 49).

If no data is listed the information is not available.

Health	Flammability	Reactivity
1	0	0

NA = not applicable

NL = not listed

NE = not established

NNR = not normally required

**Section 4: First Aid Measures**

Flush eyes with flowing water for at least 15 minutes.  
 If breathing is difficult, contact emergency personnel.  
 If swallowed, wash out mouth with water if person is conscious.  
 Remove to fresh air.  
 Wash skin with deluge of water for at least 15 minutes.

**Section 5: Fire Fighting Measures**

Flash point, deg F.: no data                      Method: no data  
 UEL: no data      LEL: no data                      Autoignition temperature, deg. F.: no data  
 Flammability Classification: no data                      Flame Propagation Rate: no data  
 Hazardous Combustion Products: no data

**Section 6: Accidental Release Measures**

Any information listed below is to be considered in addition to internal guidelines for isolation of spill, containment of spill, removal of ignition sources from immediate area, and collection for disposal of spill by trained, properly protected clean up personnel.  
 Absorb liquids on absorbent material.  
 Contain spilled liquids.  
 Use appropriate personal protective equipment.

**Section 7: Handling and Storage**

Store at 4 deg. C.

**Section 8: Exposure Controls/ Personal Protection**

The use of eye protection in the form of safety glasses with side shields and the use of skin protection for hands in the form of gloves are considered minimum and non-discretionary in work places and laboratories. Any recommended personal protection equipment or environmental equipment is to be considered as additional to safety glasses and gloves.  
 Use chemical splash goggles and face shield.  
 Use latex or equivalent gloves.

**Section 9: Physical and Chemical Properties**

Formula:	mixture	vapor pressure:	no data
Formula Weight:	mixture	vapor density:	no data
boiling point:	100 C	Specific gravity:	1.01
melting point:	no data	ph:	18 mm Hg
solubility:	miscible	appearance:	liquid

**Section 10: Stability and Reactivity**

Chemical Stabilit	stable
Conditions to Avoid:	no data
Incompatibility with other materials:	oxidizers
Hazardous Decomposition Products:	oxides of carbon
Hazardous Polymerization:	will not occur

**Section 11: Toxicological Information**

Acute Data: no data  
 Subchronic data: no data

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NA = not applicable

NL = not listed

NE = not established

NNR = not normally required

**Section 12: Ecological Information**

no data

**Section 13: Disposal Considerations**

The following chart lists the status of the chemical and its components in reference to 40 CFR Part 261.33. If the product is listed by code number the substance may be subject to special federal and state disposal regulations. If no codes are listed the material must be disposed in compliance with all Federal, State and Local Regulations.

CAS#	Waste Code	Regulated Name
007558794	not listed	not listed
007732185	not listed	not listed
010049215	not listed	not listed
017372871	not listed	not listed

**Section 14: Transportation Data**

Refer to bill of lading or container label for DOT or other transportation hazard classification, if any.

**UN Number:** 1987**Section 15: Regulatory Information**

Prop 65 - Column A identifies those items which are known to the State of California to cause cancer. Column B identified items which are known to the State of California to cause reproductive toxicity.

CAS#	Column A	Column B
007558794	no	no
007732185	no	no
010049215	no	no
017372871	no	no

State Regulatory Information :If a CAS# is listed below this material is subject to the listed state right-to-know requirements.

CAS#	MA	PA
007558794	MA	PA
007732185	not listed	
010049215	not listed	
017372871	not listed	

**SARA Toxic Release Chemicals(as defined in Section 313 of SARA Title III)**

This list identifies the toxic chemicals, including their de minimis concentrations for which reporting is required under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA). The list is also referred to as the Toxics Release Inventory (TRI) List.

CAS#	Regulated name	de minimis conc. %	Rep. Thres.
007558794	not listed	not listed	not listed
007732185	not listed	not listed	not listed
010049215	not listed	not listed	not listed
017372871	not listed	not listed	not listed

NA = not applicable

NL = not listed

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**SARA Extremely Hazardous Substances and TPQs**

This list includes hazardous chemicals as defined in 29 CFR 1910.1200(c); and extremely hazardous substances regulated under Section 302 of SARA Title III with their TPQs (in pounds), as listed in 40 CFR 355, Appendices A and B.

<b>CAS#</b>	<b>Regulated name</b>	<b>TPQ (pounds)</b>	<b>EHS-RQ(pounds)</b>
007558794	not listed	not listed	not listed
007732185	not listed	not listed	not listed
010049215	not listed	not listed	not listed
017372871	not listed	not listed	not listed

**CERCLA**

The hazardous substances, and their reportable quantities (RQs) are listed in the federal regulations at 40 CFR Part 302, Table 302.4. Release of a CERCLA hazardous substance in an amount equal to or greater than its RQ, in any 24-hour period, must be reported to the National Response Center at (800) 424-8802.

<b>CAS#</b>	<b>Regulated name</b>	<b>RQ (pounds)</b>
007558794	Not listed	Not listed
007732185	Not listed	Not listed
010049215	Not listed	Not listed
017372871	Not listed	Not listed

**Section 16: Other Information**

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**END OF MSDS**

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NL = not listed

NE = not established

NNR = not normally required