



Date Issued: 11/29/2010
Supersedes Date: 03/03/2004

MATERIAL SAFETY DATA SHEET

Section 1: Chemical Product and Company Identification

Cat #'s: F-10NB5G; F-10NB1G
Part Name: FORMALIN 10% BUFFERED NEUTRAL
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	4
2	Methanol	000067561	2
3	Sodium phosphate monobasic monohydrate	010049215	0.4
4	Sodium phosphate, dibasic, anhydrous	007558794	0.8
5	Water	007732185	96

OSHA (ACGIH) Exposure Limits

CAS#	IDHL	TWA		STEL		CEILING	
		ppm	mg/m3	ppm	mg/m3	ppm	mg/m3
000050000	20						
	OSHA: Not	--	2/15	NE	--	--	
	ACGIH:	--	--	--	--	0.3 c	0.37
000067561	6,000						
	OSHA: ACGIH;CA		260	--	--	--	--
	ACGIH:	200	262	250	250	--	--
007558794	NE						
	OSHA: NE	NE	NE	NE	NE	NE	
	ACGIH:	NE	NE	NE	NE	NE	NE
007732185	NE						
	OSHA: NE	NE	NE	NE	NE	NE	
	ACGIH:	NE	NE	NE	NE	NE	NE
010049215	NE						
	OSHA: NE	NE	NE	NE	NE	NE	
	ACGIH:	NE	NE	NE	NE	NE	NE

Section 3: Hazards Identification

Causes skin, eye and respiratory tract irritation.
Harmful if inhaled, absorbed through skin or swallowed.
Suspect cancer hazard.

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

Health	Flammability	Reactivity
2	----	0
	0	----
		0

NA = not applicable

NL = not listed

NE = not established

NNR = not normally required

Section 4: First Aid Measures

Contact medical personnel immediately.

Flush eyes with flowing water for at least 15 minutes.

If breathing is difficult, contact emergency personnel.

If swallowed, NO NOT INDUCE vomiting. Give 8 oz. of water or milk to drink. Call a physician or the POISON CONTROL CENTER immediately. Never give anything by mouth to an unconscious person.

Remove contaminated clothing.

Remove to fresh air.

Separate eyelids with finger tips.

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

Section 5: Fire Fighting Measures

Flash point, deg F.: 144 Method: cCC

UEL: 7 LEL: 73 Autoignition temperature, deg. F.: 572F

Flammability no data Flame Propagation 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.

Protect personnel from exposure.

Remove ignition sources.

Ventilate the area.

Section 7: Handling and Storage

Store at 25 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.

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

Section 9: Physical and Chemical Properties

Formula: no data vapor pressure: 1.3 @ 20c

Formula Weight: no data vapor density: 1.04

Boiling point: >200 F Specific gravity: 1.01

Melting point: 5 F ph: 2.8 for a 31% SOLUTION

Solubility: completely appearance: clear colorless liquid formaldehyde

Section 10: Stability and Reactivity

Chemical stable

Conditions to Avoid: heat, flames, ignition sources

Incompatibility with other oxidizing agents and alkalis, nitrogen dioxide, perchloric acid, nitromethane, hydrochloric acid.

Hazardous Decomposition no data

NA = not applicable

NL = not listed

NE = not established

NNR = not normally required

Hazardous will not occur

Section 11: Toxicological Information

Acute Formaldehyde:
 LD 50 Oral Rat: 100 mg/kg
 LD 50 skin rabbit: 270 uL/kg
 LC 50 inhalation rat: 203 mg/m3
 Irritation data: eye rabbit, 750 ug: severe
 Investigated as a tumorigen, mutagen and reproductive effector
 Subchronic data: no data

Section 12: Ecological Information

Formaldehyde:
 LC 50/96-hour for fish are between 10 and 100 mg/l.
 Formaldehyde is expected to leach into groundwater, readily biodegrade in water, not expected to evaporate, not expected to significantly bioaccumulate, will readily degrade by reaction w

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
007558794	not listed	not listed
007732185	not listed	not listed
010049215	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.

Section 15: Regulatory Information

All components of this product are on the TSCA public inventory.

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
007558794	no	no
007732185	no	no
010049215	no	no

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

CAS#	FL	MA	MI	MN	PA	WA
000050000	FL	MA	MI	MN	PA	WA
000067561	FL	MA	MN	PA	WA	
007558794	MA	PA				

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

007732185 not listed
 010049215 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
007558794	not listed	not listed	not listed
007732185	not listed	not listed	not listed
010049215	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
007558794	not listed	not listed	not listed
007732185	not listed	not listed	not listed
010049215	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.

CAS#	Regulated name	RQ pounds
000050000	Not listed	Not listed
000067561	Not listed	Not listed
007558794	Not listed	Not listed
007732185	Not listed	Not listed
010049215	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 judgement 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

NA = not applicable

NL = not listed

NE = not established

NNR = not normally required