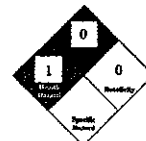


# MATERIAL SAFETY DATA SHEET

## HEMATOLOGY BUFFER

FILE NO.: 032  
MSDS DATE: 8/21/06



### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Hematology Buffer  
**SYNONYMS:** na  
**CATALOG CODES:** VWB  
**MANUFACTURER:** Volu-Sol Incorporated  
**DIVISION:** Business Services  
**ADDRESS:** 5095 West 2100 South, Salt Lake City, UT 84120  
**EMERGENCY PHONE:** (800) 535-5053  
**CHEMTREC PHONE:** (800) 424-9300  
**OTHER CALLS:** (801) 974-9474  
**FAX PHONE:** (801) 974-9553  
**CHEMICAL NAME:** N/A  
**CHEMICAL FAMILY:** N/A  
**CHEMICAL FORMULA:** Mixture  
**PRODUCT USE:** Laboratory Reagent  
**PREPARED BY:** ASH

### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.
Sodium Phosphate, dibasic	7558-79-4
Deionized Water	7732-18-5
Potassium Phosphate, monobasic	7778-77-0
Sodium Azide	26628-22-8
Benzalkonium Chloride	8001-54-5
Triton	25301-02-4
Methanol	67-56-1

### SARA 313 REPORTABLE

Methanol: CAS# 67-56-1; Sodium Azide CAS # 26628-22-8

### SECTION 3: HAZARDS IDENTIFICATION

**Caution!** May be harmful if absorbed through the skin. May cause irritation.  
**Target Organs:** None.

#### Potential Health Effects

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation. May be harmful if absorbed through the skin.

**Ingestion:** May cause irritation of the digestive tract.

**Inhalation:** May cause respiratory tract irritation.

**Chronic:** No information found.

### SECTION 4: FIRST AID MEASURES

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** Get medical aid if irritation develops or persists. Wash clothing before reuse. Rinse area with large amounts of water for at least 15 minutes.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Notes to Physician:** Treat symptomatically and supportively.

### SECTION 5: FIRE-FIGHTING MEASURES

**FLAMMABLE LIMITS IN AIR (% BY VOLUME);** UPPER: NA  
LOWER: NA

**FLASH POINT:** NA

**AUTOIGNITION TEMPERATURE:** NA

**EXTINGUISHING MEDIA:** Dry chemical, alcohol foam or carbon dioxide. Water may be ineffective. Water spray may be used to keep fire exposed containers cool, dilute spills to nonflammable mixtures and disperse vapors.

**SPECIAL FIRE FIGHTING PROCEDURES:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Vapors can flow along surfaces to distant ignition source and flash back. Contact with strong oxidizers may cause fire. Sealed containers may rupture when heated. This material may produce a floating fire hazard. Sensitive to static discharge. Ethanol burns with a near invisible flame in direct light.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**ACCIDENTAL RELEASE MEASURES:** Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

### SECTION 7: HANDLING AND STORAGE

**HANDLING AND STORAGE:** Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**AIRBORNE EXPOSURE LIMITS:** \*ppm = (mg/M<sup>3</sup>)(24.45)/MW

CHEMICAL	OSHA PEL'S		ACGIH	
	TWA	CEILING	TLV	STEL
Sodium Phosphate, di	-	-	-	-
Deionized water	-	-	-	-
Potassium Phosphate, m	-	-	-	-
Sodium Azide	-	-	-	.11
Benzalkonium Chloride	-	-	-	-
Triton	-	-	-	-

**VENTILATION SYSTEM:** A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

**PERSONAL RESPIRATORS (NIOSH APPROVED):** If the exposure limit is exceeded and engineering controls are not feasible, a half-face organic vapor respirator may be worn for up to ten times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece organic vapor respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

**SKIN PROTECTION:** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

**EYE PROTECTION:** Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Physical State:** Liquid

**Appearance:** clear

**Odor:** Not available.

**pH:** 2 +/- 0.5

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Boiling Point:** 100 deg C

**Freezing/Melting Point:** Not available.

**Decomposition Temperature:** Not available.

**Solubility:** Not available.

**Molecular Formula:** Not available.

**Molecular Weight:** Not available.

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### SECTION 10: STABILITY AND REACTIVITY

**STABLE**

Yes

**UNSTABLE**

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials.

**Incompatibilities with Other Materials:** Acetic acid is incompatible with acetaldehyde, acetic anhydride, 5-azidotetrazole, oxidants, phosphorus trichloride, and potassium tert-butoxide. Fast Green FCF is incompatible with oxidizing agents.

**Hazardous Decomposition Products:** Carbon monoxide, oxides of nitrogen, carbon dioxide, sulfur oxides (SOx), including sulfur oxide and sulfur dioxide.

**Hazardous Polymerization:** Will not occur.

### SECTION 11: TOXICOLOGICAL INFORMATION

**TOXICOLOGICAL INFORMATION:**

CAS# 64-19-7: AF1225000

CAS# 4197-07-3: QJ6418000

CAS# 5141-20-8: BQ4900000

CAS# 12501-23-4 unlisted.

CAS# 7732-18-5: ZC0110000

**LD50/LC50:**

CAS# 64-19-7:

Draize test, rabbit, skin: 50 mg/24H Mild;

Inhalation, mouse: LC50 = 5620 ppm/1H;

Oral, rat: LD50 = 3310 mg/kg;

Skin, rabbit: LD50 = 1060 uL/kg;

CAS# 4197-07-3:

CAS# 5141-20-8:

Oral, rat: LD50 = &gt;2 gm/kg;

CAS# 12501-23-4:

CAS# 7732-18-5:

Oral, rat: LD50 = &gt;90 mL/kg;

**Carcinogenicity:**

CAS# 64-19-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 4197-07-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 5141-20-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 12501-23-4: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 7732-18-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

### SECTION 12: ECOLOGICAL INFORMATION

**ECOLOGICAL INFORMATION:** None listed

### SECTION 13: DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHOD:** Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

### SECTION 14: TRANSPORT INFORMATION

US DOT	IMO	IATA	RID/ADR	CANADIAN TDG
No Info Available	No Info Available	No Info Available	No Info Available	No Info Available

### SECTION 15: REGULATORY INFORMATION

<b>TSCA</b>	CAS# 64-19-7 is listed on the TSCA inventory. CAS# 5141-20-8 is listed on the TSCA inventory. CAS# 7732-18-5 is listed on the TSCA inventory.
<b>CERCLA/SARA</b>	CAS# 64-19-7: 5000 lb final RQ; 2270 kg final RQ
<b>Clean Air Act</b>	CAS #67-56-1
<b>Clean Water Act</b>	CAS# 64-19-7 is listed as a Hazardous Substance under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
<b>OSHA</b>	None of the chemicals in this product are considered highly hazardous by OSHA
<b>State</b>	CAS# 64-19-7 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts. CAS# 4197-07-3 is not present on state lists from CA, PA, MN, MA, FL, or NJ. CAS# 5141-20-8 can be found on the following state right to know lists: California. CAS# 12501-23-4 can be found on the following state right to know lists: California, (listed as Tungsten), New Jersey, (listed as Tungsten), Pennsylvania, (listed as Tungsten), Minnesota, (listed as Tungsten), Massachusetts, (listed as Tungsten). CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.
<b>International Regulations</b>	Not available.

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