**Monitoring System Liquids on the Echo Analyzer**

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| Purpose | This procedure provides instructions for making Phosphate Buffered Saline, checking and filling the Phosphate Buffered Saline (PBS) supply container and emptying the Waste Container. |

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| Policy | * The PBS container and waste container should be checked at the beginning of each shift and emptied or filled as appropriate. * Only Blood Bank Saline buffered with pHix solution to a pH of 6.9-7.2 is permitted to be used on the Echo analyzer. * Run pH 7.0 Control with each saline cube tested. |

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| Supplies/Equipment: |  |

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| Supplies | Equipment |
| * Unbuffered Blood Bank Saline * pHix * pH 7.0 control * pH strip/paper with ability to measure range of 6.9-7.2 * Transfer Container * Transfer Shuttle * Test Tube | * Echo Analyzer |
| Procedure: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | |

Making PBS

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| Step | Action | | | |
| 1. | Open new 10L or 20L cube of unbuffered Blood Bank Saline. | | | |
| 2. | Using table below add specified amount of pHix to add to Saline cube. | | | |
|  |  | **Cube size** | **Amount of pHix** |  |
|  |  | 10L | 100 ml |  |
|  |  | 20L | 1 bottle or 200 ml |  |
|  | *Note: If partial bottle of pHix used, write initials and date opened on bottle.* | | | |
| 3. | Mix cube by making one complete rotation across counter. | | | |
| 4. | Attach spigot to cube. | | | |
| 5. | Dispense small amount of Buffered Saline into test tube. | | | |
| 6. | Dispense small aliquot of 7.0 pH Control into test tube. | | | |
| 7. | Remove 2 test strips from container. | | | |
| 8. | Dip 1 strip in aliquot of 7.0 pH control solution and 1 strip in aliquot of Buffered Saline. | | | |
| 9. | Follow directions on strip container and compare each test strip to the color chart included with strips. Select closest match to determine pH value. | | | |
| 10. | Document pH readings in appropriate column and complete requested information in remaining columns of the log. | | | |
| 11. | Is does pH control read 7.0?   |  |  | | --- | --- | | **If:** | **Then:** | | Yes | Continue to next step | | No | * Pour off new aliquot of pH control * Remove new test strip from bottle and repeat from step 8 above. | | | | |
| 12. | Is Buffered Saline pH result between 6.9-7.2? | | | |
|  |  | **If:** | **Then:** |  |
|  |  | Yes | * Write initials, opened date and pH on cube * Assign expiration date to be 1 month after opening or expiration date printed on cube whichever comes first. |  |
|  |  | No | * Add additional amount of pHix solution until pH is within acceptable range * Write initials, opened date and pH on cube * Assign expiration date to be 1 month after opening or expiration date printed on cube whichever comes first. |  |
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| 13. | Complete required information on the *Blood Bank Saline pH Log*. | | | |
| 14. | Write pH results, date pHix added, revised expiration date and your code or initials on Saline cube*.*  *Note: Revised expiration date is 1 month after opening* | | | |

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| Procedure: | PBS container may be filled while analyzer is operating. |

Fill PBS Container

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| Step | Action |
| 1. | Fill the PBS transfer container with Blood Bank Saline that has been buffered with Phix solution.  *Note: See Making PBS procedure above for instructions on how to prepare buffered solution.* |
| 2. | Lift the Fluidics Module lid to access the PBS Supply container. |
| 3. | Remove the cap from the PBS supply container. |
| 4. | Pour the PBS from the transfer container into the PBS supply container, |
| 5. | Replace the cap on the PBS Supply container. |
| 6. | Lower the Fluidics module lid back to the horizontal position. |

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| Procedure: Empty Waste Container | The ECHO analyzer has been configured to automatically empty into drain. If auto drain fails, use this procedure to manually empty Waste.  Emptying waste can be performed while analyzer is in operation. |

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| Step | Action |
| 1. | Attach the Waste Shuttle container to the Waste Container when emptying is needed. |
| 2. | Place the shuttle container on the ground ensuring the tubing is allowing the fluid to drain. |
| 3. | Detach the Waste shuttle after the waste container has drained. |
| 4. | Dispose of the Waste liquid in a dirty sink drain. |

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| References: | Immucor, Inc. *Galileo Echo Operator Manual*. ECO-001-200. Norcross, GA. |