FLORIDA INTERNATIONAL UNIVERSITY

SOP #: 806.01

Title: SOP - Use and Maintenance of the Steris® Vesta-Mizer I Proportioner

Approvals:

Attending Veterinarian _____ **Date:** 8/20/2013

1. Purpose

   1.1 The intent of this standard operating procedure is to describe how to properly use the Steris® Vesta-Mizer I

2. Responsibility

   2.1 All ACF staff is responsible for following this SOP.

3. Definitions

   3.1 ACF – Animal Care Facility

   3.2 Steris® Vesta-Mizer I – proportioner used to dilute cleaning solutions

4. Guidelines

   4.1 Reagents/Materials

   4.1.1 Steris® Process NPD.

   4.1.2 Other approved disinfectants.

   4.2 Equipment

   4.2.1 Steris® Vesta-Mizer I

   4.3 Safety Precautions

   4.3.1 All personnel should be wearing required Personal Protection Equipment (PPE) as outlined in ACF SOP 511 throughout the Vivarium.

Conversion Chart: Ratio Equivalents to Standard Measures		
Oz/Gal	**Ratio**	**%**
128	**1:1**	50.0
64	**2:1**	33.3
32	**4:1**	20.0
21	**6:1**	14.3
16	**8:1**	11.1
14	**9:1**	10.0
8	**16:1**	5.9
6	**24:1**	4.0
4	**32:1**	3.0
3	**48:1**	2.0
2	**64:1**	1.5
1	**128:1**	0.8
½	**256:1**	0.4
¼	**512:1**	0.2

4.4.1.3 Replace cabinet cover. Push the sides in, behind the latch holes, to snap the cover in place.

4.4.1.4 Turn water supply on.

4.4.1.5 Place discharge hose in container needing diluted disinfectant.

4.4.1.6 Push button to start flow of desired water/concentrate solution, and hold until supply tube is primed (filled). Then push whenever dispensing is desired, and release button to stop flow of solution.

4.4.1.7 To dispense water only (no cleaning product added), turn ball valve handle on tap water outlet at left of dispenser (handle should be in horizontal position).

4.4.1.8 When desired amount has been reached, shut off water supply and replace supply tube accordingly.

4.4.2 Maintenance

4.4.2.1 Check foot valve strainer periodically for clogging. Clean if necessary.

4.4.2.2 Keep equipment clean for proper operation.

4.3.2 Always observe safety and handling instructions of the chemical manufacturer.

4.3.3 Always discharge away from you or other persons or into approved containers.

4.3.4 Always dispense cleaners and chemicals in accordance with manufacturer's instructions. Exercise CAUTION when maintaining your equipment.

4.3.5 Keep equipment clean for proper operation.

4.3.6 Wear protective clothing and eyewear when working in the vicinity of all chemicals, filling, or emptying equipment or changing metering tips.

4.3.7 Always re-assemble equipment according to instruction procedures. Be sure all components are firmly screwed or latched into position.

4.3.8 Attach only to tap water outlets (85 PSI maximum).

4.4 Procedures

4.4.1 Usage

4.4.1.1 Proportioners are conveniently installed throughout the vivarium.

4.4.1.2 Staff should be able to identify the required tip, based on the chart. Open cabinet cover, and attach the required tip for the needed dilution.

Color of Tip	Ratio
No Tip	**4:1**
Gray	**7:1**
Black	**8:1**
Beige	**12:1**
Red	**16:1**
White	**22:1**
Blue	**32:1**
Tan	**42:1**
Green	**64:1**
Orange	**80:1**
Brown	**96:1**
Yellow	**128:1**
Aqua	**170:1**
Purple	**256:1**
Pink	**470:1**

4.5 Troubleshooting

Problem	Cause	Solution
1. No discharge	a. No water. b. Magnetic valve not functioning. c. Excessive water pressure. d. Eductor clogged.	a. Open water supply. b. Install valve parts kit. c. Install regulator if water pressure exceeds 85 PSI. d. Clean* or replace.
2. No concentrate draw	a. Clogged foot valve. b. Metering tip or educator has scale build-up. c. Low water pressure. d. Discharge tube and/or flooding ring not in place. e. Concentrate container empty. f. Inlet hose barb not screwed into educator tightly. g. Clogged water inlet strainer.	a. Clean or replace. b. Clean (descale)* or replace. c. Minimum 25 PSI (with water running) required to operate unit properly. d. Push tube firmly onto educator discharge hose barb, or replace tube if it doesn't have a flooding ring. e. Replace with full container. f. Tighten, but do not overtighten. g. Disconnect inlet water line and clean strainer.
3. Excess concentrate draw	a. Metering tip not in place.	a. Press correct tip firmly into barb onto educator.
4. Failure of unit to turn off.	a. Water valve parts dirty or defective. b. Magnet doesn't fully return. c. Push button stuck. d. Excessive water pressure.	a. Clean* or replace with valve parts kit. b. Make sure magnet moves freely. Replace spring if short or weak. c. Realign cabinet or clean grommet that button passes through (part no. 235900). d. Install regulator if pressure exceeds 85 PSI.

*In hard water areas, scale may form inside the discharge end of the educator, as well as in other areas of the unit that are exposed to water. This scale may be removed by soaking the educator in a descaling solution (deliming solution). To remove an eductor located in the cabinet, firmly grasp siphon breaker and unthread eductor. Replace in same manner. This will avoid loosening the siphon breaker. Alternatively, a scaled eductor can be cleaned (or kept from scaling) by drawing the descaling solution through the unit. Operate the unit with the suction tube in the descaling solution. Operate the unit until solution is drawn consistently, then flush the unit by drawing clear water through it for a minute. Replace concentrate container and put suction tube into concentrate.

4.6 References

Steris. (1996, July) *VestaMizer I Insert.* St. Louis, MO: Steris.