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Attica Veterinary Associates, P.C. www.atticacows.com

Preparation of 50% potassium sorbate solution

Purpose:
This document describes the procedure for the preparation of 50 % Potassium Sorbate solution for addition to colostrum to inhibit bacterial growth.

Materials for bulk mixing: (for small batches, see below)
Potassium sorbate (food grade) (will need 10 Kg or 22 lbs. per batch)
Water (will need 3 gallons per batch) (distilled water is preferred if tap water might contain impurities)
20 L storage container with the wide mouth
Scales and measuring equipment
15" stainless steel whip or a lab magnetic stirrer

Precautions:
Observe procedures to reduce the amount of potassium sorbate powder inhaled.
To avoid over diluting final solution, add distilled water slowly and allow the Potassium sorbate to fully dissolve.

Procedure:

1. Determine batch size: Make 20 L in a 20 L carboy container.
2. Determine quantity of potassium sorbate required: 10 Kg (#10 can will hold 1 Kg for weighing).
3. Determine quantity of distilled water required: have 3 gallon (11.4L) jugs of distilled water on hand.
4. To a clean 20 L container add 2 gallons (7.5L) of distilled water.
5. Gradually add potassium sorbate. With each addition of potassium sorbate, stir until it is mostly dissolved. Use the 15" stainless steel whip to stir.
6. Note that the potassium sorbate will go into solution much easier if it is added in 1 Kg amounts rather than all at once.
7. After all potassium sorbate solids are added and completely dissolved (I usually wait overnight) add enough more water to bring level up to 20 L.
8. Put a label on the carboy showing mixing date.

Check off each 1kg container of dry ingredient added to carboy: 1 2 3 4 5 6 7 8 9 10

Person Mixing Solution _____ Date _____

Mixing small batches (one gallon or less container)

1. Start with a clean container
2. Fill container with dry potassium sorbate; mark or note fill level.
3. Alternate between adding distilled water to container and slowly blending the water and dry potassium sorbate. Swirl contents slowly rather than shake to avoid incorporating excessive amounts of air.
4. When full, let sit overnight to allow dry potassium sorbate to dissolve and air to disperse.
5. Mix again, fill with water to same level as container was originally filled with dry ingredient.