Preparing Quality Control (QC1) Solution

Purpose This procedure provides information on how to prepare a **100 ml** Quality Control (QC1) Solution to make a QC sample to verify the accuracy of the analysis

Materials

Reagents	Supplies	Equipment
• Sodium Acetate • Sodium Formate • Valine • Glycine • Sodium Azide (NaN3)	• 50 mL falcon tube • 100 mL volumetric flasks • Weighing paper/tray • 125 mL amber storage bottle • Spatula	• Analytical balance • pH meter • Vortex

Procedure

- The concentration of each compound in standard solution is **5.00 mM**
- The solution should contain 0.1% (g/mL) sodium azide to prevent bacterial growth

Reagent	Cas Number	Molecular Weight (g/mol)	Weight (mg)
Sodium Acetate	127-09-3	82.03	41.02
Sodium Formate	141-53-7	68.01	34.01
Valine	72-18-4	117.15	58.58
Glycine	56-40-6	75.07	37.54

Step	Details
1.	Review the Material Safety Data Sheets for all the reagents.
2.	Calibrate the analytical balance.
3.	Using a weighing boat, carefully weigh the reagents mentioned on the table above and dissolve each compound in 50 mL of deionized H_2O.
4.	Weigh 100 mg of sodium azide and dissolve in the 50 ml solution made at step 3.
5.	After thoroughly mixing, Adjust the pH to 7.0
6.	Transfer the solution to a 100 ml volumetric flask. Add H_2O to bring the level of the flask to 100 ml.
7.	Stopper the flask and mix by turning upside down and back several times.
8.	Store the standard solution at 4 °C

References Not applicable

Related Documents Not applicable

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