Practice 3.38.

Industrial Production of Syrups

Carbetapentane Citrate Syrup
Sirupus Carbetapentanecitras

Carbetapentane citrate		2.0 g
Sodium saccharin		0.5 g
Alcohol		40.0 ml
Purified water		100.0 ml
Methyl paraben		0.7 g
Propyl paraben		0.3 g
Syrup (50% w/w)	q.s.	1000.0 ml

Preparation:

Carbetapentane citrate is dissolved in 100 ml purified water in a beaker. Add sodium saccharin and stir until dissolved. In another beaker, methyl paraben and propyl paraben are dissolved in 40 ml of alcohol. These two solutions are put into a liter beaker and mixed. The syrup we prepared previously is added to the mixture in the beaker by mixing with little amount. The total volume is added to 1000 ml with the addition of syrup and mixed well (1000 ml volume is accurately measured before being started and marked on the beaker).

All prepared syrups are combined in the main syrup collection tank and mixed until they are all single. Filter through the glass filter with vacuum. The density of the prepared syrup is determined before the filling process. For this, a tared 100 ml flask is filled with syrup and weighed precisely and the syrup has a density. Then the bottle filling machine is adjusted to fill each bottle with 90 ml syrup and filled syrup into the bottles. The caps are closed and labeled. (Syrup bottles are empty and their caps are closed. .

Questions:

1. Show the amount of syrup in each vial in grams and ml.

2. Calculate the average syrup amount (ml), mean and standard deviation in the bottles you fill and calculate the amount in each bottle, the% deviation from the mean, and in a table. Evaluate the results of the table you found.

3. Write down the tasks of the substances used in the formulation.

4. What are the changes observed in syrups over time?