

## Practice 12.12. Industrial Production of Ointments

Cetyl alcohol	5.0 g
Stearyl alcohol	5.0 g
White Vaseline	20.0 g
Sodium lauryl sulfate	1.0 g
Propylene glycol	8.0 g
Purified water	61.0 g
Essence	q.s.
Methyl paraben	0.15%

### Preparation:

Large scale ointment production will be made by using melting method. Cetyl alcohol, stearyl alcohol and white petrolatum are heated to 70 ° C on a water bath in a capsule (I). In a beaker, sodium lauryl sulfate is added to one-third of the purified water by adding propylene glycol to the same temperature (70 ° C) on a water bath (II). In the remaining water, methyl paraben is dissolved and heated to 70 ° C (III). Mixing is carried out in a planetary mixer. First the oily phase is taken out of the water bath (mixture I) into the planetary mixer and the mixer is operated. The aqueous phase (after combining the II and III mixtures) is added to the oily phase in the planetary mixer while the mixer is operating continuously. When the temperature of the mixture cools down to 40 ° C, perfume is added and stirring is continued. Stirring is continued until it cools down. The prepared ointment is poured into the ointment filling device. The ointment filling device is then adjusted to fill the ointment 20g in each ointment tube and the prepared ointment is filled into the tubes. The ointment tubes are empty and weighed one by one while the caps are closed. After filling, the tubes are closed. The tubes (with the covers closed) are re weighed (when filling the ointments, note that there is no air in the tube). Make a gram of ointment content in each tube. Calculate the average amount of ointment, standard deviation, and the deviation of the mean in each tube from the average, in a table. Specify your personal comment based on the results of the table you found.