Practice 16.45.

Baby Oil

	%
Liquid paraffin	30.0
Cetyl alcohol	4.0
Hard paraffin	2.0
Wool fat	1.0
Emulsifier	7.0 *
Purified water	55.85
Methyl paraben	0.15
Perfume	q.s.

Preparation:

Melt the solid paraffin within liquid paraffin over a water bath. Add lanolin, cetyl alcohol and sorbitanmonooleate. The temperature of the mixture is set to 70°C. On the other hand, dissolve polysorbate 80 in water and heat to 72 °C. Add the aqueous portion slowly over the oily portion by stirring (Ultra-Turrax)**. Stirring is continued until the system cools down. Once the system has cooled down, the viscosity is measured using (D) the coded Hac-shaft of the Brookfield *** LVT viscometer (speed 12 rev / min) and using the Helipth-Stand. Measurements are repeated using the same shaft once every 24 hours for seven days result in graphical viscosity of the emulsion over time.

Plastic containers are weighed one by one before they are empty. Emulsions filled in plastic containers with the help of ointment filling machine are weighed one by one together with the containers. Weights of ointment are determined.

Questions:

1. How did you calculate the % amount of emulsifiers according to this formula?
2. How can you explain how the viscosity of the system changes over time?
3. What is the type of emulsion?
4. What is the role of the solid paraffin in the formula? If the amount of cetyl alcohol is reduced to 1%, what kind of change can occur in the system?
5. Calculate the standard and relative deviations of the weights of full and empty containers. Find the reliability limits of the mean.
6. By using the emulsion you prepared and dripping on the slides, follow the spreading and film formation and write down these impressions.
7. Do containers leak? You watch.