Making Salad Dressing

Emulsions: Making Salad Dressing

Materials:
Soybean oil
Vinegar, lemon juice
Emulsifiers: Soy lecithin, grain mustard, honey
Seasoning: Herbs, garlic, cayenne, pepper, salt
Serological pipettes and pump
Scoop
Balance
Test tubes
Test Tube Rack
Parafilm

Procedure:
1. Place four clean test tubes in a test tube rack.
2. Label a test tube for each emulsifier, and label one "control."
3. Use a balance to measure 1 gram of each of the following emulsifiers: soy lecithin, grain mustard and honey.
4. Place 1 gram of each emulsifier in corresponding test tubes.
5. Using a serological pipette, add 4 ml of vinegar to each test tube, and invert to make a homogenous mixture.
6. Using a clean pipette, add 4 ml of soybean oil to each test tube.
7. Cover the opening to the "control" test tube, and invert for 30 seconds.
8. At the end of 30 seconds start the stopwatch, observing the sides of the test tube for 1-5 minutes for signs of separation. When you see that most of the oil has separated from the vinegar, record how long the process took on your data sheet in the column marked "separation time."
9. Repeat step 7-8 for each of the test tubes containing an emulsifier. If an emulsion has not separated after 5 minutes, write "over five minutes" on your data sheet.
10. Add various herbs and spices to each emulsion, invert to mix and repeat steps 7-9.

Data: Separation Time of Emulsifiers in Salad Dressing

Emulsifier	Separation time before adding seasoning (min)	Separation time after adding seasoning (min)	Observations
Control			

Which emulsifier is most effective?

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