

1. What are surfactants? What are the types of surfactants? What type is sodium LAS, SLES and coco DEA?

Surfactants are compounds that reduce the surface tension of a liquid in which it is dissolved, may be between two liquids or between a solid and a liquid. These may act as detergents or foaming agents. There are 3 types of surfactants namely anionic, cationic, non-ionic, and silicone. Sodium LAS and SLES are anionic, and coco DEA is non-ionic.

2. Do foams help in cleaning? Why do you think consumers prefer products that generate a lot of foams that lasts longer?

Foaming agents help greasy stains mix with water, making grease water soluble, to be able to clean the item better. Foams are just superficial side effects. The longevity of foam makes consumers think that is it more efficient; the foamier, the better, but foam levels have to drop due to antifoam effects of grease.

V. Conclusion

The group was able to formulate its own hand dishwashing liquid and to test its properties with a commercially sold dishwashing liquid. The results of the group's second formulation were relatively near to the results of the benchmark's formulation, although its pH level is quite high compared to that of the benchmark's. Other than that, foam was stable and it had decreasing capability as vegetable as added. Slight improvements for the second formulation are needed to be able to compete with the benchmark dishwashing liquid in the market. For costing, the second formulation is more expensive since it used two surfactants as compared to the benchmark. Overall, the benchmark dishwashing liquid is still much better than the second formulation as seen from the performance test results and the cost analysis.

VI. References

- 1) Surfactant. *Wikipedia*. Retrieved 10 May 2014 from <http://en.wikipedia.org/wiki/Surfactant>
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