

8.3: Saponification Report Sheets

Name (first and last):

Lab Partner (first and last):

Date of experiment:

Table 1 (6 points)

TEST	Water	Lab Soap	Commercial Soap	Detergent
pH				
Foam				
Rxn w/ Oil				
Hard Water A. CaCl_2				
Hard Water B. MgCl_2				
Hard Water C. FeCl_3				

Questions: (1 point each)

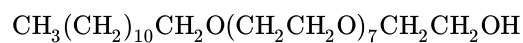
1. Describe the soap that you made.
2. Which of the soaps were basic? Why?
3. What is the effect of soap and detergents on oil? How do they work?
4. How could you determine if a water sample is soft or hard water?
5. What happens to the glycerol produced during the saponification?
6. Why is the product of saponification called a salt?

7. Sodium palmitate is: $\text{CH}_3(\text{CH}_2)_{14}\text{COONa}$

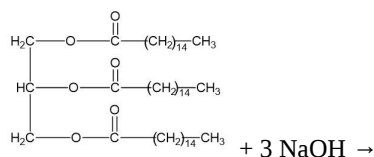
Identify the hydrophobic end and the hydrophilic end of this molecule.

8. Which has the greater solubility in water? palmitic acid or sodium palmitate

9. The following molecule is an example of a **nonionic detergent**. Circle the end that is the grease soluble component.



10. Write the product/s for the following reaction



11. If “lauryl” is the common name for dodecyl (12 carbons), what is the formula for the detergent, sodium lauryl sulfate?

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