

Name: _____

Lab Section: _____

Percent Yield of Soap: *(Show calculations)****Emulsifying Properties***

Fill in the table below with data on emulsifying properties of your soap compared to detergent. Include observations

Agent	Oil Used	Did emulsion form?	How long was the emulsion sustained? (sec, minutes)
De-ionized Water			
Soap			
Detergent			

Observations:

Formation of Soap Scum

Fill in the table below with data on emulsifying properties of your soap compared to detergent. Include observations

Agent	Ion Used	Foaming?	Soap scum?	Scum dissolved with phosphate?
De-ionized Water	1% CaCl ₂			
Soap	1% CaCl ₂			
Detergent	1% CaCl ₂			
De-ionized Water	1% MgCl ₂			
Soap	1% MgCl ₂			
Detergent	1% MgCl ₂			
De-ionized Water	1% FeCl ₃			
Soap	1% FeCl ₃			
Detergent	1% FeCl ₃			

Draw the reaction mechanism of saponification: