You want to determine the concentration of a colored molecule, Texas Red, as accurately as possible. Texas Red can react with NaOH and lose an H+ according to the following equation:

Texas Red (aq)(colored) +NaOH(aq) → Texas Red- (not colored) + Na+(aq) + H2O(l)

A) You have 10.0 mL of Texas Red solution and it takes 25.7 mL of 0.013 M NaOH solution to make the color completely vanish (completely react with the Texas Red). What is the concentration of the Texas Red?

B) To check the Texas Red concentration, you measure the concentration spectrophotometrically using a calibration curve you had previously constructed (graph below). You find the absorbance to be 0.42. What concentration does this represent?

(Answers: A 0.033 M, B 1.54 x 10-4 moles, C around 0.03 M)

You spill a few drops of a chemical on your arm. What two things should you do?

(Answer: wash it off and notify your instructor)