(a) (D) Soponification is the manufacture of through the hosting of on oil Joop (in) Like the other is polor. The stichs into grease, while the tail posits at and. This is braver polar. Obo slip 15 grese Ē makes the grease come This is suspended in the Later. 6 250247 024 = 2503(g) _ (S0,) 2 (FU)2 [0.] z (80.07)² [64.07] [32] 0.0488 (4.d.p) 2

02/WB8

LD OF STUDIES c) i) when surficie acid is addred to wanter Sulfinic acid + H20 ->. aleum \$ 242500 + H20 -32425207 +++ Oleum ii) Surinic aciclican be used an a dehydrahing agentin the formation of etnene from etnome (eg H OH H2SUA H-C-C-H H2SUA I L H H2O. sulfinicación combeused a a oxidióriogagent eg of oxidining. > the soartho -> +250 + HO7 (+1 a precipitabing sulfate (aNO3 + H2SOR -> Casor + H2NO3

02WB4

di) The practical work was; ain to see Cromate + 11HT -> dichromate + hydroxide yellow orange. orage 1. Place 20mL of cromate, in water and dichromate & tes Na OH into & a beaker This produces an equility add more cromate or die chromote for it to reach equilbrium. ii) By adding more OH it shifted He equilibrium to the right 7 timed solution yellow by adding more and it timed the selection orange of Shifted it right left.

e) The castner-Kneler method, or the Mercury cell was a once often used method of producing NaOH. The Mercury Cell, however, was a colpurite of Mercury pollution and often the sea wather used to actract brine, was sent back into the seawith stercory in it. Solid mercury in a table state, does not have anigative impact on the environment. Unforhnally bacteria in the ocean managed

to convert some of the solid mercury into mercury compounds. The Mercury was then ingested by fish and other aquatic organismi, and the concentration of mercury acculumated up through the food chain sothert the top poseditor og himan, ate the mat mercury. Due to this pollubion, new methods of extracting NaOH were developed, and methods such as the membrane cell mene developed reducing mercury pollution and other side effects. The extraction of the brine itself (the source of sodium) also caused concern but song dants now producing NaOH one Silvated close to salf mines or the rea and use responsible environmental send methed for Nall extraction