

CHAPTER V

CONCLUSIONS

The effect of anionic surfactant on hardness tolerance of soap was studied. The hardness tolerance (precipitation phase boundary) was measured over a wide range of soap concentration as a function of pH and mole ratios of anionic surfactant/soap. The ratios of SDS/SO where the fraction of SDS was greater than SO could not be prepared because of the solubility limits of SDS and SO. At low pH, some experiments could not be done because of the protonation of SO. When pH is lowered, the minimum hardness tolerance of mixed system slightly increased. The hardness tolerance of SO increased when SDS was added.