

CHAPTER V

CONCLUSION



Cosmetics are necessary for people of all ages in their everyday-lives. Dangers caused by microorganisms that contaminated in cosmetics have been found for decades. Many scientists and microbiologists have paid their attention to those problems and for a long time have been trying to find out methods to maintain cosmetics with quality and safety.

As there is more and more local production and in order to cope with problems concerned, The Ministry of Industry has declared Notification No. 181 (8 December, 1975) and No. 209 (31 March, 1976) that the total number of bacteria, yeast and fungi to be less than 1000 colonies per gm or ml. Faecal coli, *Staphylococcus aureus*, *Pseudomonas aeruginosa*, each should be less than one colony per g or ml, and finally not any *Salmonella* be found in 100 g or ml specimen.

The purpose of this study was to survey whether cosmetics in the market have their specification and standard required by the government or not and to find out if the manufacturers have obeyed the law.

The results of this study were from 141 samples of four types of unused cosmetics randomly selected : eye make-up, powder lotion, shampoo, and talcum powder. All samples were examined microbiologically and biochemically analyzed, isolated and identified. The contaminated samples were 9 from 13 samples (69%) ; 11 from 20 samples (55%); 11 from

44 samples (25%) and 39 from 64 samples (61%) of each type mentioned above respectively. The pathogens were isolated, identified and the results were as follows : 5 from 13 samples (38%); 7 from 20 samples (35%); 6 from 44 samples (14%) and 0 from 64 samples of each type respectively. The total aerobic count ranged from $10-10^4$ cell per gram or milliliter. The contamination may come from raw material and inadequate sanitary protection during the process of manufacturing. The consumers are unlikely to use the spoiled products but they unknowingly use a contaminated cosmetics. The possible health hazard is readily apparent since these products may be used on infants, by the old, the sick, by hospital staff and patients.