GENERAL INTRODUCTION

Fatty acids and their derivatives play an important roles in the variety of industrial products like, textiles, plastics, paints, surfactants, rubber cosmetics, foods and pharmaceuticals because they are used as raw materials.

The production of fatty acids from the non-edible oil resources upgrades them to be suitable for the manufacture of all types of surfactants and other products.

All organic surfactants comprise a characteristic feature in their molecular structure. The molecule must contain a portion, which has affinity to oils (lypophilic), whereas the opposite end of the molecule, at some distance, has an attraction for water or aqueous solutions (hydrophilic). This ability within the same molecule will be a dual affinity for substances of entirely different natures, such character gave these substances surface-active properties in quite dilute solutions. This function is due to the tendency of the molecules to concentrate at interfaces between the solvent and a gas, solid, or other immiscible liquids. From these phenomena, the term surface-active agents or surfactants were derived. At the boundaries of the solvent, the molecules are oriented in such that the hydrophobic hydrocarbon chain or "tail" of molecule is direct toward the hydrophobic or oily phase and the hydrophilic or polar "head" is directed or embedded into the aqueous or polar phase. This property leads to the ability of these materials to reduce surface tension, to cause foaming, and to exhibit other unique properties. Therefore, surfactants find utility in many fields the principal use being as detergents, wetting agents, dispersing agents and frothing agents. Consequently, they are widely incorporated in house hold cleaning

products and in such diverse applications as agricultural sprays, cosmetics, floatation, foods, emulsifiers, lubricants, leather manufacture, inks, synthetic elastomer production and oil recovery operation. The following is a concise review of literature covering some important aspects of fatty acid derivative application. This review is cited in the following order; various types synthetic surface-active agents (anionic, nonionic, cationic and amphoteric) and field of their application.