Recently, the interest in herbal natural products is increasing. One of the areas that natural products attract the attention is textile industry. Studies related to using of natural oils as antibacterial, antifungal, insect and blowfly repellent has been increasing. In this study, microencapsulation and determination of antibacterial activity of pomegranate rind extract was aimed. It is needed to microencapsulate the herbal extract for durability applications, because they are volatile. Microencapsulation is encapsulation technique of solid or liquid material into a polymeric shell and microsize particles were produced by using this technique. Microcapsules comprise of core and shell materials. Microcapsules that are produced in this study contain pomegranate rind extract as core and chitosan/Gum Arabic as shell material. In the study, pomegranate rind was dried at a room without sunlight and then smashed by using chopper. Prepared pomegranate rind was extracted by using Soxhlet instrument during 6 hours. Cyclohexane was used as solvents. Chemical composition and antibacterial activity of extract were tested by GC-MS and agar disk diffusion test method, respectively. After that extract was encapsulated by complex coacervation of Chitosan and Gum Arabic polymers. Morphology and particle size of the microcapsules were analyzed by optical microscopy. FT-IR spectroscopy was used to characterize the chemical structure of microcapsules.