Bioactive surfactants are molecules with broad applications as complexation agents, antimicrobials or transfections agents [1]. Some hydrophobic ethers obtained from 4-nitro-3-hydroxibenzoic acid have shown to be active in enzymatic processes [2]. These compounds also show antimicrobial activity. Complexation of hydrophobic molecules with cyclodextrins could enhance the bioavailability and also improve properties such as solubility and stability [3]. Based on these considerations, we synthetized an octyl ether of 4-nitro-3-hydroxibenzoic acid, characterized the aggregation of this compound and its complexation with α and β cyclodextrins. After surface tension measurements, we obtained a CMC for this compound. The ROESY spectrum shows that the aliphatic chain of the surfactant molecule protrudes into the cavity of both cyclodextrins.