The essential oils of aerial parts of Calamintha nepeta (L.) Savi subsp. glandulosa (Req.) P.W. Ball, and Calamintha nepeta (L.) Savi subsp. nepeta (Lamiaceae), growing wild in Mediterranean region of Turkey were obtained by hydrodistillation and were analyzed by GC and GC/MS. Thirty compounds (representing 97.60 % of the oil) and 16 components (representing 99.12 % of the oil) were identified for varieties glandulosa and nepeta, respectively. The major components, belonging to oxygen containing hydrocarbons, were piperitone oxide (33.78 %), piperitenone oxide (15.79 %) and isomenthone (11.17 %) in the variety glandulosa oil and pulegone (48.44 %) and menthone (38.69 %) in the variety nepeta oil.