The hydro-distilled volatile oil of the *Cinnamomum zeylanicum* (C. zeylanicum) buds was analyzed using GC and GC-MS for the first time. Thirty-four compounds representing \( \approx 98\% \) of the oil was characterized. It consists of terpene hydrocarbons (78\%) and oxygenated terpenoids (9\%). \( \alpha \)-Bergamotene (27.38\%) and \( \alpha \)-copaene (23.05\%) are found to be the major compounds. A comparison of the chemical composition of the oil was made with that of flowers and fruits.