Antifungal effects of geothermal fluids obtained from the Ankara, Afyon, Denizli, and Eskişehir regions of Turkey on white-rot (*Trametes versicolor*, MAD-697) and brown-rot (*Coniophora puteana*, FPRL 11E) fungus (Basidiomycetes) were studied. Fungal experiments were performed on kraft paper and Scots pine wood (*Pinus sylvestris* L.). We used non-concentrated geothermal water and concentrated geothermal water (via evaporation) in ratios of 25%, 50%, and 75%. To evaluate the results, we measured the concentration of specific minerals in the geothermal fluids such as boron (B), arsenic (As), copper (Cu), sulfate (SO₄), sodium (Na), chloride (Cl), flouride (F), potassium (K), and ammonia (NH₃). The highest antifungal effect was observed for a geothermal fluid from the Denizli region, followed by Ankara, Afyon, and Eskişehir, in decreasing order. Antifungal properties of GFs are thought to be associated with the type and amount of mineral substances. In addition, the antifungal effects increased with increasing concentrations of geothermal water.