A tick assembly pheromone present in the excretory waste product of the soft tick, *Ornithodoros porcinus porcinus* (Walton), has been separated by high performance liquid chromatography (HPLC). It has been identified as guanine on the basis of absorption and mass spectral data, and bioassays using nymphs of *Argas persicus* (Oken). Guanine was active at a low concentration of 8×10^{-12} M/cm^2 of filter paper. Guanine was shown to induce assembly in *Amblyomma cohaerens* Donitz larvae and *Rhipicephalus appendiculatus* Neumann adults.

Various purines and ammonium salts tested in the assembly bioassay, and with exception of adenine, were shown to be active for *A. persicus*.