## ABSTRACT

### A THERAPEUTIC AGENT FOR USE IN THE TREATMENT OF INFECTIONS

A therapeutic agent for use in treatment of an infection of a human or animal. The agent comprises carriers loaded singly or in combination with at least one inert precursor chemical. The carriers encapsulate the precursor chemical or chemicals which after release from the carrier are activatable by the physiological milieu *in situ* at the site of the infection to form an antimicrobial agent. The precursor chemical or chemicals form an oxidative biocide on release, which oxidative biocide is hydrogen peroxide. The precursor chemicals also comprise an acetyl donor that on release reacts with the hydrogen peroxide produced by the peroxygen donor to produce a mixture of peracetic acid and hydrogen peroxide. The carrier is preferably in the form of micro- and/or nano-particles that have been manufactured using a thermally induced phase separation (TIPS) process, for example the carrier may comprise a biodegradable polymer such as poly(lactic-co-glycolic acid) (PLGA).

**FIG. 1**