

The present invention relates to the synergistic antimicrobial compositions containing mixture of two organic acids or their salts, wherein at least one organic acid is selected from the group consisting of citric acid, benzoic acid, propionic acid, tartaric acid, acetic acid, benzenesulfonic acid, oxalic acid, malic acid, salicylic acid, lactic acid gluconic acid, hydroxyacetic acid and their salts; and wherein said acids are mixed at a ratio from 32:1 to 1:32. The invention further relates to the methods of selectively controlling undesirable microorganisms in fermentation processes using combination of any two organic acids.