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(54) Title: REDUCTION OF VIRAL INFECTIONS

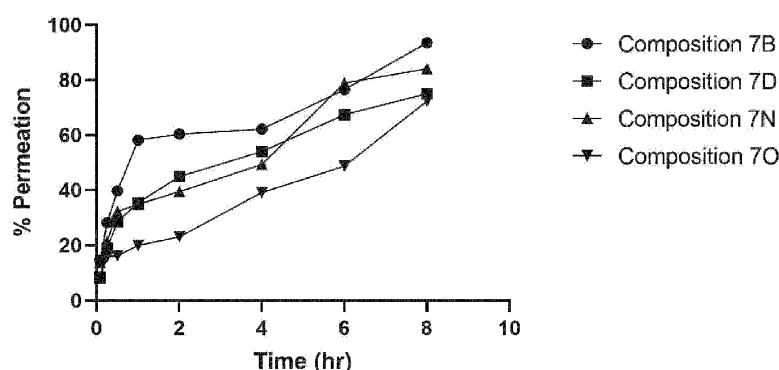


Figure 4

(57) **Abstract:** The present invention relates to a composition comprising one or more of clove oil, eucalyptus oil, basil oil, ginger oil, an extract or component of any of these, or a combination thereof, and to a buffer composition having a pH of from 6.7 to 7.9 at a temperature of 37°C, both for use in the treatment, prophylactic treatment or amelioration of an airborne viral infection, or for use in reducing viral replication in a subject infected with an airborne virus or exposed to an airborne virus capable of causing an airborne viral infection in the subject. The present invention also relates to an aqueous composition either comprising a buffer and an essential oil with antiviral, antibacterial or antifungal activity; or comprising a buffer, hydrogen carbonate ions, and zinc ions; or comprising a buffer, hydrogen carbonate ions, and transferrin and/or iron ions. The present invention also relates to methods of preparing the compositions, and to concentrates of the compositions. The compositions can be used in a method of treatment, prophylactic treatment or amelioration

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of an airborne viral infection in a subject, and a method of reducing viral replication in a subject infected with an airborne virus or exposed to an airborne virus capable of causing an airborne viral infection in the subject. Airborne viruses include RNA viruses, such as coronaviruses, such as MERS-CoV, SARS-CoV, and SARS-CoV-2. The compositions can be administered by nasal spray, inhaler or nebulizer, or in the form of a cream, gel or emulsion, and the invention therefore also relates to nasal sprays, inhalers, nebulizers, creams, gels or emulsions comprising the compositions. The compositions can also be applied to a mask or other face covering thereby reducing the risk of viral infection with an airborne virus, and the invention therefore also relates to sprays comprising the compositions. The compositions can also be used in a receptacle through which an oxygen-containing gas is bubbled prior to inhalation by a subject, and the invention therefore also relates to receptacles containing the compositions.