**TITLE**

THE CHEMICAL COMPOSITION SUITABLE FOR IMPREGNATION VIA SPRAYING ON DISPOSABLE SUGICAL MASKS AND SLEEVED GOWNS MADE FROM HYDROPHILIC AND HYDROPHOBIC MATERIALS TO INACTIVATE BACTERIA AND VIRUSES SUCH CORONAVIRUS, SARS, MERS, INFLUENZA A AND INFLUENZA B VIRUSES

**DESCRIPTION**

This invention relates to the Chemical Composition for impregnation via spraying on disposal surgical masks and sleeved gowns made from hydrophilic and hydrophobic materials to inactivate bacteria and enveloped viruses such as Coronavirus, SARS, MERS, Influenza A and Influenza B Viruses comprising of aqueous colloidal silver nanoparticles, Isopropanol Alcohol/ Ethanol Alcohol Chlorhexidine gluconate /Quaternary Ammonium Compound (alkyl dimethyl benzyl ammonium chloride, alkyl didecyl dimethyl ammonium chloride, and dialkyl dimethyl ammonium chloride), Peppermint/ Spearmint Essential oils and water.

**DESCRIPTION OF PRIOR ART**

Disposable surgical face masks and sleeved gowns are the most widely used by healthcare professional and the public during an epidemic or pandemic. Disposable surgical masks and sleeved gowns made from hydrophilic and hydrophobic materials prevent the bacteria and viruses from infecting the healthcare professionals and the spread of diseases as it helps catch the bacteria shed in liquid droplets during sneezing into the wearer's mouth and nose.

It has long been the object of the applicants' research to provide the chemical composition for impregnation via spraying of surgical masks and sleeved gowns to protect healthcare professionals against bacteria and enveloped virus such as Coronavirus, SARS, MERS, Influenza A and Influenza B Viruses infection while using said gears.

Primarily disposable surgical masks and sleeved gowns have traditionally been made from nonwoven fabrics and polypropylene with hydrophobic properties or a water chemical-repellent chemical finish or other hydrophilic materials.

**US Patent No. 20140377467 A1** discloses A method for inhibiting the spread of nosocomial infections in institutional health care settings comprises treating outer garments, worn indoors by employed staff of the institution, to impart antimicrobial properties to those garments by immersing the garments in a solution of glyxol, eugenol and water, squeezing the solution out of the garments, curing the wetted garments under heat, and drying the cured garments; and thereafter requiring employed staff to wear the treated garments while working at the institution;