

ABSTRACT

The present invention provides a functional transition metal silicate (FTMS) effective as a decontaminant, a disinfectant, a detoxificant, a protectant, a microbicide or combination
5 thereof, comprising a ratio of transition metal to silica in the transition metal silicate in a predetermined range and a structural composition for said effectiveness, said FTMS being capable of being immobilized on a suitable materials or incorporating into resins and / or coating along with resins on suitable materials.