

## **The Revolutionary Antiviral Mask: Story of Activated Dolomite**

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N95 mask is recommended by WHO against SARS and influenza virus infection, due to its high fit factor and particulate filtration efficiency. However, N95 mask is originally designed for filtering dust particles, not virus and bacteria. In Japan, surgical mask with ear-loop is recommended as a safeguard against airborne particle infections. Despite its lower fit factor, surgical mask wins with high breathability and convenient ear-loop design – features considered more suitable in everyday life, particularly for long-period applications. However, high leakage remains as a pronounced shortcoming of surgical mask. Irrespective of the mask type used, concern looms over what to do with the infectious virus that has been filtered out, underscoring a pressing need for effective virus-inactivation aside from filtration. We believe that an effective solution can be created by designing a new surgical mask offering high fit factor rivaling that of the N95 mask, and a potent virus-inactivation capability. To that end, we are pleased to share the result of our recent development leveraging the effectiveness of activated dolomite - a mineral ingredient used in anti-virus and anti-bacteria agent. Our extensive research has shown that activated dolomite, whether used as a simple substance or applied on filter material, is effective in killing various microorganisms. This is further confirmed by our testing in which mask applied with activated dolomite, when compared to other surgical masks in market claiming similar capability, achieves the highest level of virus-inactivation and exhibits good potential to be a highly effective product against airborne particle infections.