

To

Schwerin, 27th of Feb. 2020

Meiko Maschinenbau GmbH & Co. KG

Englerstr. 3

D-77652 Offenburg

Certificate

on the effectiveness of the cleaning and disinfection process

for fire brigade protection masks in the washer disinfectant

TopClean M from Meiko

against Corona Viruses, as well as against

the new Coronavirus (2019nCoV)

Corona viruses belong to the group of enveloped viruses. They usually cause mild respiratory or intestinal infections in humans. The newly emerged strain 2019nCoV makes an exception in this point because it can also cause a life-threatening respiratory infection. In terms of its dangerousness, it roughly corresponds to the classic flu caused by the influenza A virus.

As an enveloped virus, however, the new pathogen is no more resistant to disinfectants or automated cleaning and disinfection processes than all other enveloped viruses. A special thermo resistance is not described for it, as well as for all other corona viruses. On the contrary, it can be assumed that corona viruses are already sensitive to temperatures from 60 °C to 70 °C.

The Meiko TopClean M washer disinfectant is used for the reprocessing of protection masks of fire brigades. In its disinfection process, it works either with the disinfectant **Sekumatic FDR** (based on Glucoprotamine) or **EW80 mat** (based on quaternary ammonium compounds, QAV).

The other process parameters are in both cases: Use a 1% solution of the disinfectant at a temperature of 60 °C with a contact time of 6 minutes. Under these conditions, full effectiveness against Corona viruses, in particular also against Corona virus 2019nCV, is expected for both disinfection methods.

For inactivation of Corona viruses as well as of any other enveloped virus the standard reprocessing procedure for protection masks can strictly recommended:

Cleaning and disinfection machine: TopClean M from Meiko

Disinfectant products: Sekumatic FDR or EW80 mat and each product must be used as a 1% solution at 60 ° C and a contact time of 6 minutes.

A handwritten signature in blue ink, appearing to read "F. v. Rheinbaben". The script is cursive and somewhat stylized.

PD. Dr. Dr. F. v. Rheinbaben