



COVID-19 SANITATION METHODS

COMPREHENSIVE OUTLINE OF METHODS
FOR VEHICLE DISINFECTION



CAR SANITATION

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EXECUTIVE SUMMARY

passengers, who are often reluctant to board a non-sanitized vehicle. In light of the outbreak, there is a need for a quick and efficient method to sanitize vehicles with high passenger turnover. This to ensure both the wellbeing of passengers, as well as the long term prosperity of the auto industry.

The goal of this research is to provide a knowledgeable manual for car disinfection through presentation of different options and approaches. The research covers four main disinfection methods, provides information regarding common detergents against bacteria and viruses, best practices for cleaning a car from viruses and germs, as well as key suppliers for each method of cleaning and detergent.

The information in this research should be sufficient in supporting short term decisions for car sanitation, while giving a decent base to expand upon the topic of “human-less” (automatic) methods for car disinfections on a larger scale.



BACTERIA VS. VIRUSES

Bacteria are single-celled microorganisms that thrive in many different types of environments, including extreme cold or heat. Viruses are substantially smaller than bacteria and depend on living hosts such as people, plants or animals in order to multiply; without a host a virus cannot survive. Once a virus enters the body, it invades select cells and takes over the cell machinery, reprogramming it to produce the virus.

Perhaps the most important distinction between bacterial and viral infections, is that antibiotic drugs are usually able to kill bacteria, but they are not effective against viruses. A car's interior may contain both bacteria and viruses, therefore, an adequate sanitation solution should be capable of eliminating both.



CLEANING VS. DISINFECTING

Cleaning refers primarily to the removal of visible dirt or particles; however, the cleaning process and some products used for cleaning also result in disinfection. Cleaning is normally undertaken on a routine and frequent basis.

Disinfection refers to specific measures taken to control, deactivate or kill infectious agents, such as viruses and bacteria. Disinfection is normally undertaken on an infrequent basis, during periodic maintenance checks or following a public health incident, such as the suspected carriage of an infectious passenger.

Possible routes of infection transmission that may occur onboard a vehicle fall into three categories:

- Directly inhaled respiratory droplets, suspended airborne particles, or both.
- Direct physical contact with fecal matter, blood or other bodily fluids.
- Contact with respiratory secretions, fecal matter or bodily fluids deposited on surfaces, or for maintenance crews, entrained in ventilation systems.

Sometimes, a case of communicable disease is known only several days (or longer) after the infected person has traveled and may have deposited pathogens on surfaces in the car. The risk of infection upon contact with such contaminated surfaces will depend on the viability of the organism, the number of organisms, whether the surface has been properly cleaned and/or disinfected, whether the pathogen is touched and transferred, as well as the susceptibility of the traveler.
