

Chemical Fogging – Enhanced Guidance

1. Introduction

Fogging refers to the method of disinfecting the atmosphere and surfaces in rooms and enclosed areas by filling the space with a minutely fine mist of disinfectant. This is done using specialist fogging equipment.

Advantages of fogging are:

1. Performed correctly it applies disinfectant to all exposed surfaces in an entire room, which would be impractical when applying manually.
2. It enables whole area disinfection to be achieved with minimal personal exposure to chemicals.

Fogging is only suitable for disinfecting enclosed spaces where the distribution of sanitiser can be contained and controlled. There is little to be gained from attempting to fog external areas, yards, walls, pavement etc. This is not recommended.

2. Safety and Chemical Fogging

During fogging the air in the room will be filled with a minute dispersion of disinfectant. Hence there is a risk of exposure of lungs, eyes and skin. Whilst Super Antiviral Disinfectant is not classified as hazardous, it is essential that all personnel evacuate the area once fogging is underway and the room sealed to prevent inadvertent exposure of people outside the area being treated.

Chemical fogging operations performed by professionals are subject to the COSHH Regulations. Employers have a responsibility to conduct a COSHH Risk Assessment and implement all necessary precautions to eliminate the possibility of human exposure to chemicals in use.

Safety Data Sheets are available to support employers' compliance with COSHH.

During fogging all personnel should evacuate the area until the operation is complete and the particles have been allowed to settle. The settling time, i.e. how long before it's safe to re-enter treated areas will depend primarily on atmospheric conditions and the properties of the fogging apparatus used. Typically, this is 30-60 minutes.

Where a risk assessment identifies the possibility of inhalation of chemical fog, consideration should be given to use of FFP3 quality moulded disposable mask that offers a high level of protection against fine dust, fibres and water-based mists.

Under no circumstances should fogging be used on people or animals.

3. Fogging & COVID Management

Fogging is useful as part of an overall COVID risk management system. It enables disinfection of large areas as part of a deep clean, rendering areas safely disinfected. However, whilst fogging alone might eliminate viruses on treated surfaces it cannot guarantee ongoing protection once a room is recommissioned.

As with any chemical disinfection the presence of other soiling, dirt and dust will impede efficacy. So whilst chemical fogging is a useful tool in wide area disinfection its effectiveness is limited when used in areas that are generally unclean. Hence good deep cleaning and regular dusting should be considered as important aspects of environmental hygiene management.

Following fogging, when a room has been recommissioned and human contact with surfaces start to occur, it is important to establish a routine of periodic cleaning and disinfection of frequent/high contacted surfaces.

In principle good environmental hygiene management requires a combination of:

- a) Periodic deep cleans, to include dusting, cleaning and fogging
- b) Regular cleaning of high contact surfaces including work tops, desk tops, hand rails and door handles.

Regarding interim cleaning between deep cleans, guidance from WHO with respect to management of the COVID risk in hospitals recommend that high contact surfaces in shared/high traffic areas should be cleaned twice daily and shared toilets three time a day. This is a useful rule of thumb for other environments.

4. Planning

When considering use of fogging as a means of enhancing environmental hygiene consideration must be given to:

Practicability:

- Is the area suitable for fogging?
- Is it an enclosed space where fog can be contained for the required time?
- Is it an area where I can limit access during treatment?
- Are the objects, furniture, obstructions that might prevent effective coverage of the fog?
- Are there items; electrical equipment or plants that might be harmed and how can they be protected?

5. Preparation

In order to be effective, disinfection needs to be conducted correctly and to a set process. Equipment used must be operated in line with manufacturer's directions. To this end clearly documented procedures outlining disinfection processes is important: they provide a basis for training for staff and hence consistent practice.

When fogging with disinfectant it is important to ensure you follow the manufacturer's guidance and are fully familiar with correct operation of the device. Always follow the equipment manufacturers instructions.

It is important to remove food and food contact items before fogging. After fogging rinse/wipe down any treated food contact surfaces with a clean, damp cloth.

Textiles can act as a sink for dispersed disinfectant and so ideally should be removed or covered with polythene sheeting during fogging to optimised treatment of the rest of the room.

Assess the need to protect and or disconnect electrical equipment.

We would advise caution when fogging areas with plants as it is difficult to predict how individual plants will respond to exposure of any disinfectant.

Fire detectors should be covered up if there is a risk that they will trip a false alarm.

Air conditioners and ventilation should be turned off.

Finally assess any areas where fog might be able to escape in large volumes. Close windows etc.

If necessary tape doors and wall vents.

6. Pre-Cleaning

Chemical disinfection is impeded by the presence of dirt and dust, hence good deep cleaning and regular dusting are important aspects of environmental hygiene management.

Pre-cleaning should start with the least soiled surfaces and work towards the most soiled, usually the floor or high contact work areas.

7. Antiviral Disinfectants - Use Concentration & Dosage

Super Antiviral Disinfectant is supplied at use concentration and so must not be diluted. The level is controlled such that it is effective against viruses – but not so high that it creates a risk to people using the space once it has been recommissioned.

The product should be used neat, allowing for about 1 litre for 100m³ of room volume.

8. Chemical Fogging and Legislation

Super Antiviral Disinfectant complies with all current legislation relating to health and safety, environment and biocides. We source our active ingredients from Article 95 listed manufacturers and have had independent efficacy data conducted to the latest European Standards by ISO17025 accredited laboratories. Products are labelled in compliance with interim arrangements for biocides in the UK.