

Smart Notes

Q
A

What's the best way to clean the Thermo Scientific™ Herasafe™ 2025 biological safety cabinet?

Thermo Scientific™ SmartClean™ Plus enables full window opening via a hinge system. This allows easy cleaning and disinfection with full access to the interior cabinet space.

When fully open, all surfaces can be easily reached including the inside of the glass window.

The electrically operated sliding sash window has a working position of 200mm, although this can be opened further to aid loading/unloading. The possibility to fully open the front-hinged window design brings additional benefits. It allows convenient posture for thorough cleaning and disinfection without the need for special cleaning accessories.

The fully hinged opening also allows full height access when loading/unloading larger items into the cabinet, as well as convenient service access to replace UV bulbs and white LED lights.



Why is cleaning a Biological Safety Cabinet important?

Decontamination procedure

Several procedures can be applied for decontaminating the safety cabinet. Which procedure is selected, depends on:

- the potential risk imminent in the agents
- the degree of purity required by an experiment or by a work process.

Possible decontamination procedures

Wipe/spray disinfection is the standard disinfection procedure for cabinets used for microbiological experiments.

UV disinfection is particularly suited as an intensifying additional disinfection after a wipe/spray disinfection.

Sterilisation with steam can be used for treating the removable stainless steel components. Examples of autoclavable components are the bezels of the UV lamps, the workplate or workplate segments and the armrests.

Disinfection with formaldehyde can be performed if a sterile sample chamber is required for the work process. This sterilisation procedure is mandatory:

- when filters are replaced
- when the device is shut down
- when the device is discarded.



Wipe/spray disinfection

The wipe/spray disinfection is performed in three stages:

1. Predisinfection
2. Cleaning
3. Final disinfection.

NOTE: Before cleaning and UV disinfection the covers of the UV lamps must be removed and afterwards installed.

1

Predisinfection:

- Remove all samples from the sample chamber and store them properly.
- Remove accessories from the safety cabinet and disinfect them using the disinfection procedure recommended by the manufacturer.
- The workplate and stainless steel components can be removed from the sample chamber and disinfected separately.
- For predisinfection, spray disinfectant on all sample chamber surfaces or wipe the surfaces using disinfectant.
- Do not remove the optional UV lamps from the sockets; wipe them thoroughly using a damp cloth.
- Switch the device to work mode, move front window to the working position.
- Allow disinfectant to react as recommended by the manufacturer, then operate the safety cabinet for at least 15 to 20 minutes in the work mode so that released aerosols can be absorbed by the filters.

2

Cleaning:

- Thoroughly remove dirt residues and deposits using a solution of tepid water and dishwashing agent.
- Wipe the surfaces clean using a clean cloth and plenty of clear water.
- Remove the cleaning liquid from the drain pan and wipe all sample chamber surfaces dry.

3

Final disinfection:

- Again, spray disinfectant on all sample chamber surfaces or wipe the surfaces clean with disinfectant.
- Allow disinfectant to react as recommended by the manufacturer.



NOTE: Compatibility

Disinfectants containing chloride may damage some surfaces. Use only chloride-free disinfectants or a disinfectant with a low enough chloride content to have been proved harmless for stainless steel finishes. Disinfectants with an alcohol content of more than 70% may cause embrittlement of plastic components after extended exposure. Use only disinfectants with a low alcohol content. When using a disinfectant with an alcohol content of more than 70%, the release limit of 200g within 2 hours must not be exceeded. Also suited are disinfectants based on quaternary ammonium compounds.

UV disinfection after a wipe/spray disinfection

A UV disinfection can be performed either by using the optional integral UV lamps or by using a mobile UV device. The run time of the routine can be preset with the operating panel.

Summary

At minimum a wipe/spray disinfection should be carried out daily. This is the standard disinfection procedure for cabinets used for microbiological experiments.

There are numerous other cleaning options available-more details to be found in our operating manuals and technical bulletins.



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