Safetygram

NCI Frederick

ISM-124 Laboratory Personnel January 2012

Disinfection Using Formaldehyde

Formaldehyde is one of the gaseous sterilants used at NCI-Frederick for the disinfections of buildings, rooms, biological safety cabinets, and ventilated cabinets. EHS personnel have reduced the use of formaldehyde sterilization to only those areas and situations where it is needed. Liquid disinfectant washes are used in all other areas.

Formaldehyde can be detected by most people at less than 1 part per million (ppm); at 5ppm, eye and upper respiratory tract irritation is severe. EHS personnel use formaldehyde as a sporicide, and whenever possible formaldehyde is used during off-duty hours. However, it is very difficult to completely contain a gas; therefore trace amounts sometimes migrate from the space being treated to adjacent areas.

Formaldehyde treatment may be used for:

Laminar flow biological safety cabinets before recertification testing and repairs. The mode of decontamination will be determined by the Biological Safety Officer based on an evaluation of the risk of potential exposure to the agent or agents used in the cabinet since the last decontamination.

Laboratories after an accident involving a Class 2 or 3 agent (CDC) when it is believed that the accident created widespread contamination of the laboratory.

Animal rooms when certain epizootic diseases have been detected.

Other areas or situations when EHS personnel determine that formaldehyde is the most efficacious agent and does not impose employee health risks.

To reduce employee exposure and eliminate environmental release of carcinogenic sterilants, EHS is strongly advocating the reduction of the use of formaldehyde. Gaseous formaldehyde should be used only when a liquid decontaminant is not feasible.

Call EHS at x1451, if you have questions about disinfecting with formaldehyde.