Autoclaving GMO Materials

The containment of Genetically Modified Organisms (GMOs) and materials has become a fairly contentious issue in recent times.

When dealing with highly pathogenic organisms in a laboratory the requirements and the reasons for them are quite obvious and are now well established.

The issue with most GMOs however is slightly different. In the majority of cases the organisms and materials hold very little safety threat in themselves. The issue is the prevention of the 'artificial' genetically modified material escaping into the 'natural' world outside and possibly usurping its natural counterpart.

Whether this is of real concern or not, it is more a matter of public perception and any responsible laboratory will need to be aware of the issues and possible methods of containment and sterilising.

The Health and Safety Executive have published guidelines on this subject, which are available by using the following link:

http://www.hse.gov.uk/biosafety/gmo/acgm/acgmcomp/

As part of good autoclaving practice, especially although not exclusively when working with genetically modified materials, it is definitely worthwhile considering Performance Testing of the relevant autoclaving cycles.

By testing a fully representative load and measuring the actual temperatures in that load during the cycle Performance Qualification (PQ) Testing offers a very high level of assurance of inactivation of material, and will satisfy most people's requirements. When this work is carried out by a manufacturer the autoclave settings and parameters can usually be adjusted to optimise performance.

Priorclave are able to offer full UKAS accredited PQ testing on new and existing autoclaves. Please contact our service department on 020 8316 6620 for more details or email us at service@priorclave.co.uk

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