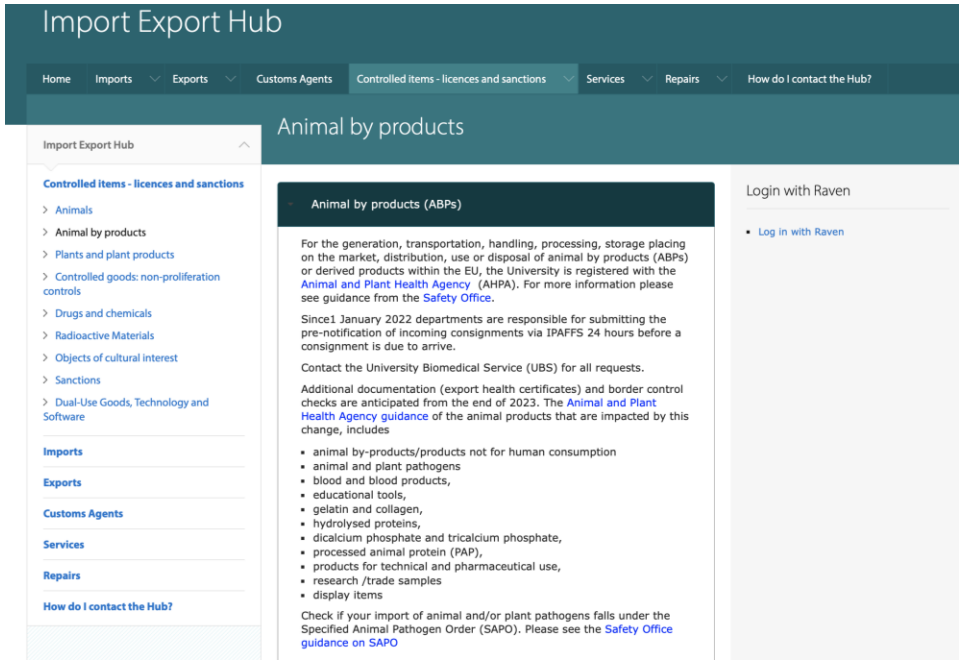
Quick bites and hot topics

Mark Wills, Interim Head of Department of Medicine
Chair University Biological safety Sub-committee

May 7th 2024

UNIVERSITY OF CAMBRIDGE



Import/export of Animal By Products.

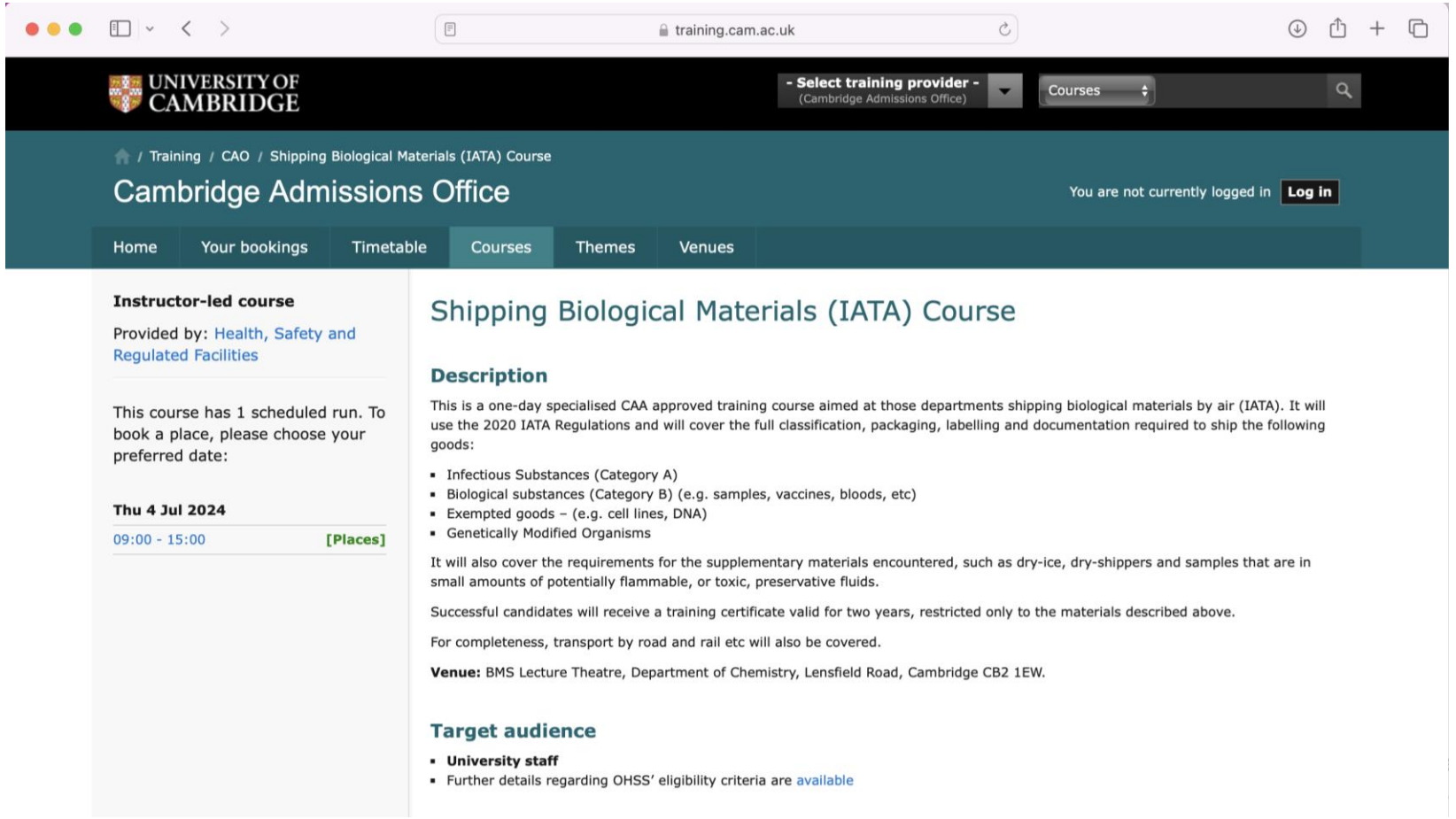
- New rules for commercial imports.
- Final implementation end of April.
- Importing typical low risk material for research purposes not affected, keep doing what you are doing.

BUT

- Plan ahead if bringing back samples from abroad,
- clearly indicate on package contents for research, not for commercial use.

Import/Export team and Mark Elsdon can offer advice, do feed back any issues and also if it all worked smoothly.

https://www.importexport.admin.cam.ac.uk/animal-products



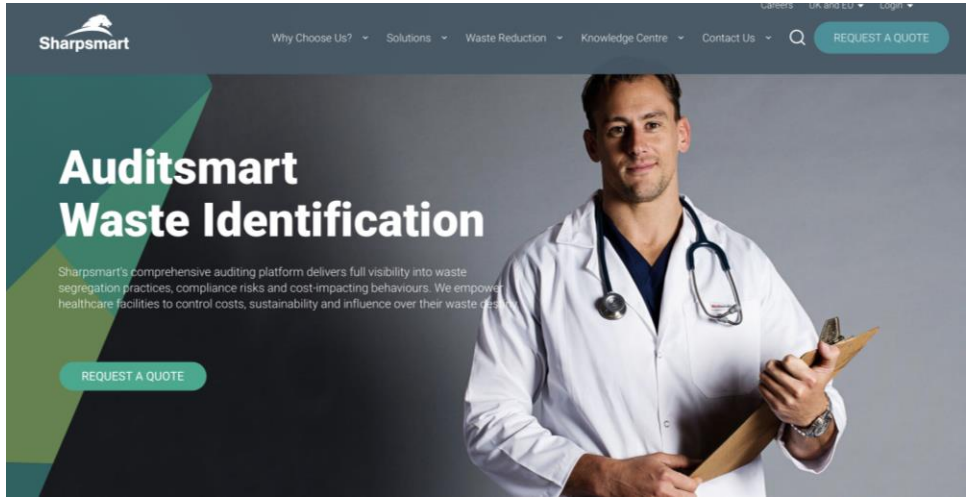
Book online https://training.cam.ac.uk/cao/course/ohss-safety101

International Air Transport Association (IATA) training.

- Self-audit results indicated that not every dept that sends infectious material by air has an IATA trained person.
- Please make sure (refresher) training is done **every two years** and that succession planning as well as backup is in place.

Next course 1 day course

4 July 2024.



Waste. Sharpsmart waste audits.

These are free for Departments, done by Sharpsmart,

Paid for by the University.

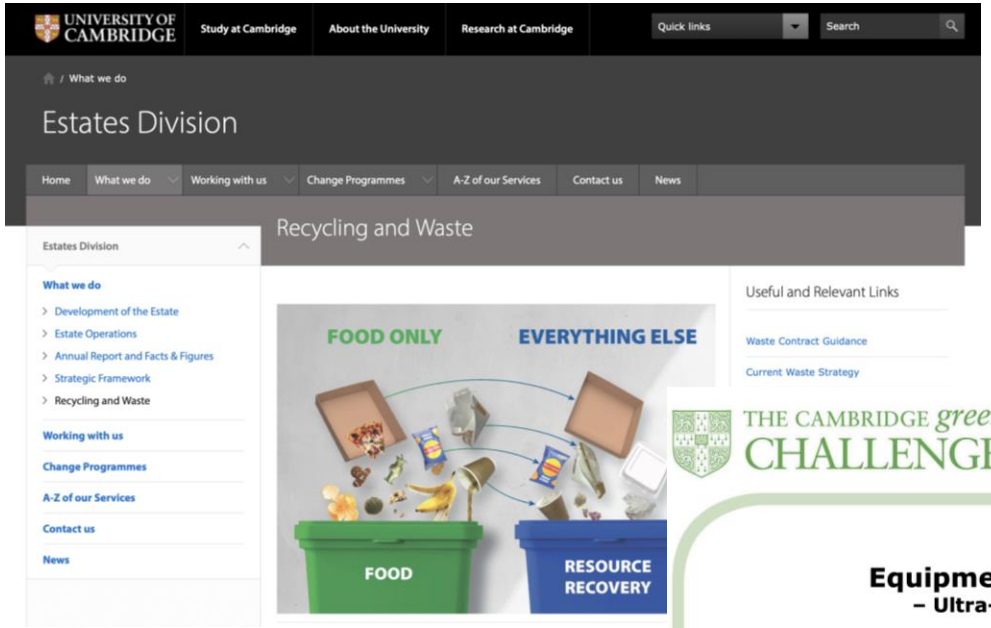
Helpful compliance check.

Make sure your Department responds to audit requests.

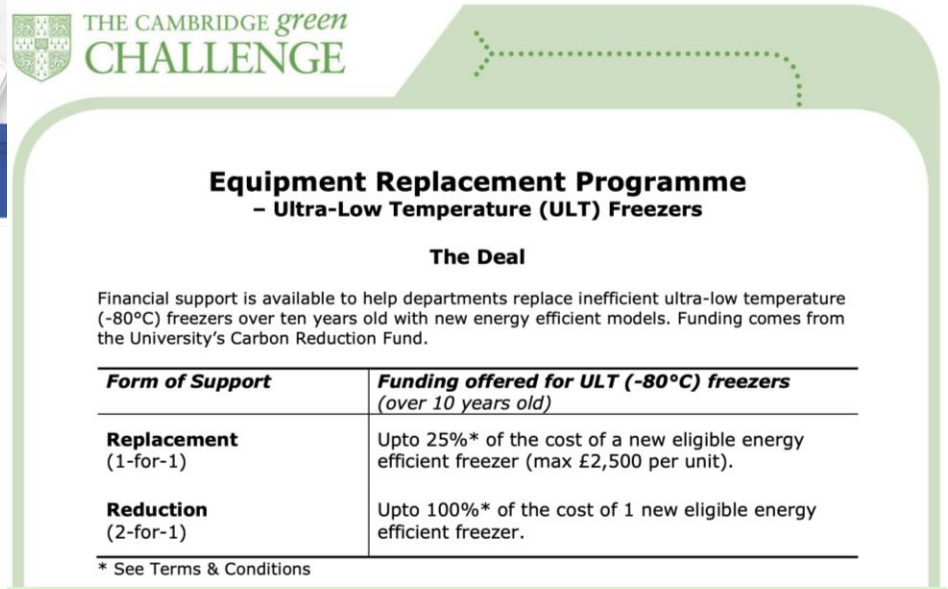
Sharpsmart are a preferred supplier but Novus can also be used.

These contracts are between Department and company, Claudia Conti from Finance helps with roll-out.

https://www.sharpsmart.co.uk/auditsmart



https://www.em.admin.cam.ac.uk/what-we-do/recycling-and-waste



https://www.environment.admin.cam.ac.uk/files/20210708_erp_freezer_guide_v9.0.pdf

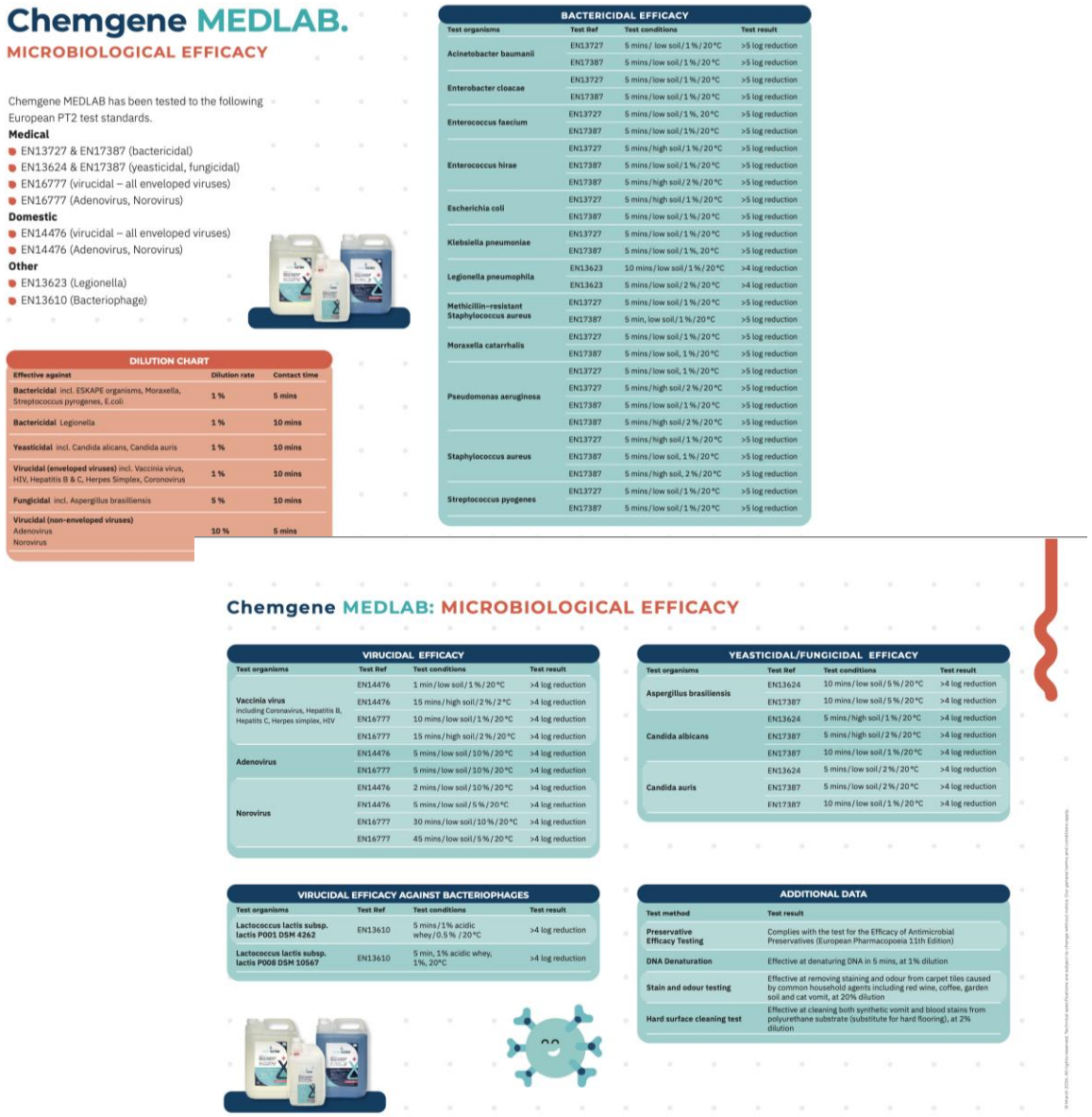
Waste Electrical and Electronic Equipment (WEEE).

Interim budget for lab electrical waste until end of 2025/26 academic year.

Now includes all waste except large -80 freezers.

-80 exchanged as part of the Equipment Replacement Program, a subsidy scheme to replace old for more efficient new -80s; run by Sustainability.

Departments might have to budget for WEEE waste in future!



Chemgene MEDLAB.

MICROBIOLOGICAL EFFICACY

Chemgene MEDLAB has been tested to the following European PT2 test standards.

Medical

- EN13727 & EN17387 (bactericidal)
- EN13624 & EN17387 (yeasticidal, fungicidal)
- EN16777 (virucidal – all enveloped viruses)
- EN16777 (Adenovirus, Norovirus)

Domestic

- EN14476 (virucidal – all enveloped viruses)
- EN14476 (Adenovirus, Norovirus)

Other

- EN13623 (Legionella)
- EN13610 (Bacteriophage)

DILUTION CHART

Effective against	Dilution rate	Contact time
Bactericidal incl. ESKAPE organisms, Moraxella, Streptococcus pyrogenes, E.coli	1 %	5 mins
Bactericidal Legionella	1 %	10 mins
Yeasticidal incl. Candida alicans, Candida auris	1 %	10 mins
Virucidal (enveloped viruses) incl. Vaccinia virus, HIV, Hepatitis B & C, Herpes Simplex, Coronovirus	1 %	10 mins
Fungicidal incl. Aspergillus brasiliensis	5 %	10 mins
Virucidal (non-enveloped viruses) Adenovirus Norovirus	10 %	5 mins

BACTERICIDAL EFFICACY

Test organisms	Test Ref	Test conditions	Test result
Acinetobacter baumanii	EN13727	5 mins / low soil / 1 % / 20 °C	>5 log reduction
	EN17387	5 mins / low soil / 1 % / 20 °C	>5 log reduction
Enterobacter cloacae	EN13727	5 mins / low soil / 1 % / 20 °C	>5 log reduction
	EN17387	5 mins / low soil / 1 % / 20 °C	>5 log reduction
Enterococcus faecium	EN13727	5 mins / low soil / 1 % / 20 °C	>5 log reduction
	EN17387	5 mins / low soil / 1 % / 20 °C	>5 log reduction
Enterococcus hirae	EN13727	5 mins / high soil / 1 % / 20 °C	>5 log reduction
	EN17387	5 mins / low soil / 1 % / 20 °C	>5 log reduction
	EN17387	5 mins / high soil / 2 % / 20 °C	>5 log reduction
Escherichia coli	EN13727	5 mins / high soil / 1 % / 20 °C	>5 log reduction
	EN17387	5 mins / low soil / 1 % / 20 °C	>5 log reduction
Klebsiella pneumoniae	EN13727	5 mins / low soil / 1 % / 20 °C	>5 log reduction
	EN17387	5 mins / low soil / 1 %, 20 °C	>5 log reduction
Legionella pneumophila	EN13623	10 mins / low soil / 1 % / 20 °C	>4 log reduction
	EN13623	5 mins / low soil / 2 % / 20 °C	>4 log reduction
Methicillin-resistant Staphylococcus aureus	EN13727	5 mins / low soil / 1 % / 20 °C	>5 log reduction
	EN17387	5 min, low soil / 1 % / 20 °C	>5 log reduction
Moraxella catarrhalis	EN13727	5 mins / low soil / 1 % / 20 °C	>5 log reduction
	EN17387	5 mins / low soil, 1 % / 20 °C	>5 log reduction
Pseudomonas aeruginosa	EN13727	5 mins / low soil, 1 % / 20 °C	>5 log reduction
	EN13727	5 mins / high soil / 2 % / 20 °C	>5 log reduction
	EN17387	5 mins / low soil / 1 % / 20 °C	>5 log reduction
	EN17387	5 mins / high soil / 2 % / 20 °C	>5 log reduction
Staphylococcus aureus	EN13727	5 mins / high soil / 1 % / 20 °C	>5 log reduction
	EN17387	5 mins / low soil, 1 % / 20 °C	>5 log reduction
	EN17387	5 mins / high soil, 2 % / 20 °C	>5 log reduction
Streptococcus pyogenes	EN13727	5 mins / low soil / 1 % / 20 °C	>5 log reduction
	EN17387	5 mins / low soil / 1 % / 20 °C	>5 log reduction

Chemgene MEDLAB: MICROBIOLOGICAL EFFICACY

VIRUCIDAL EFFICACY

Test organisms	Test Ref	Test conditions	Test result
Vaccinia virus including Coronavirus, Hepatitis B, Hepatits C, Herpes simplex, HIV	EN14476	1 min / low soil / 1 % / 20 °C	>4 log reduction
	EN14476	15 mins / high soil / 2 % / 2 °C	>4 log reduction
	EN16777	10 mins / low soil / 1 % / 20 °C	>4 log reduction
	EN16777	15 mins / high soil / 2 % / 20 °C	>4 log reduction
Adenovirus	EN14476	5 mins / low soil / 10 % / 20 °C	>4 log reduction
	EN16777	5 mins / low soil / 10 % / 20 °C	>4 log reduction
Norovirus	EN14476	2 mins / low soil / 10 % / 20 °C	>4 log reduction
	EN14476	5 mins / low soil / 5 % / 20 °C	>4 log reduction
	EN16777	30 mins / low soil / 10 % / 20 °C	>4 log reduction
	EN16777	45 mins / low soil / 5 % / 20 °C	>4 log reduction

YEASTICIDAL/FUNGICIDAL EFFICACY

Test organisms	Test Ref	Test conditions	Test result
Aspergillus brasiliensis	EN13624	10 mins / low soil / 5 % / 20 °C	>4 log reduction
	EN17387	10 mins / low soil / 5 % / 20 °C	>4 log reduction
Candida albicans	EN13624	5 mins / high soil / 1 % / 20 °C	>4 log reduction
	EN17387	5 mins / high soil / 2 % / 20 °C	>4 log reduction
	EN17387	10 mins / low soil / 1 % / 20 °C	>4 log reduction
Candida auris	EN13624	5 mins / low soil / 2 % / 20 °C	>4 log reduction
	EN17387	5 mins / low soil / 2 % / 20 °C	>4 log reduction
	EN17387	10 mins / low soil / 1 % / 20 °C	>4 log reduction

VIRUCIDAL EFFICACY AGAINST BACTERIOPHAGES

Test organisms	Test Ref	Test conditions	Test result
Lactococcus lactis subsp. lactis P001 DSM 4262	EN13610	5 mins / 1% acidic whey / 0.5 % / 20 °C	>4 log reduction
Lactococcus lactis subsp. lactis P008 DSM 10567	EN13610	5 min, 1% acidic whey, 1%, 20°C	>4 log reduction

ADDITIONAL DATA

Test method	Test result
Preservative Efficacy Testing	Complies with the test for the Efficacy of Antimicrobial Preservatives (European Pharmacopoeia 11th Edition)
DNA Denaturation	Effective at denaturing DNA in 5 mins, at 1% dilution
Stain and odour testing	Effective at removing staining and odour from carpet tiles caused by common household agents including red wine, coffee, garden soil and cat vomit, at 20% dilution
Hard surface cleaning test	Effective at cleaning both synthetic vomit and blood stains from polyurethane substrate (substitute for hard flooring), at 2% dilution

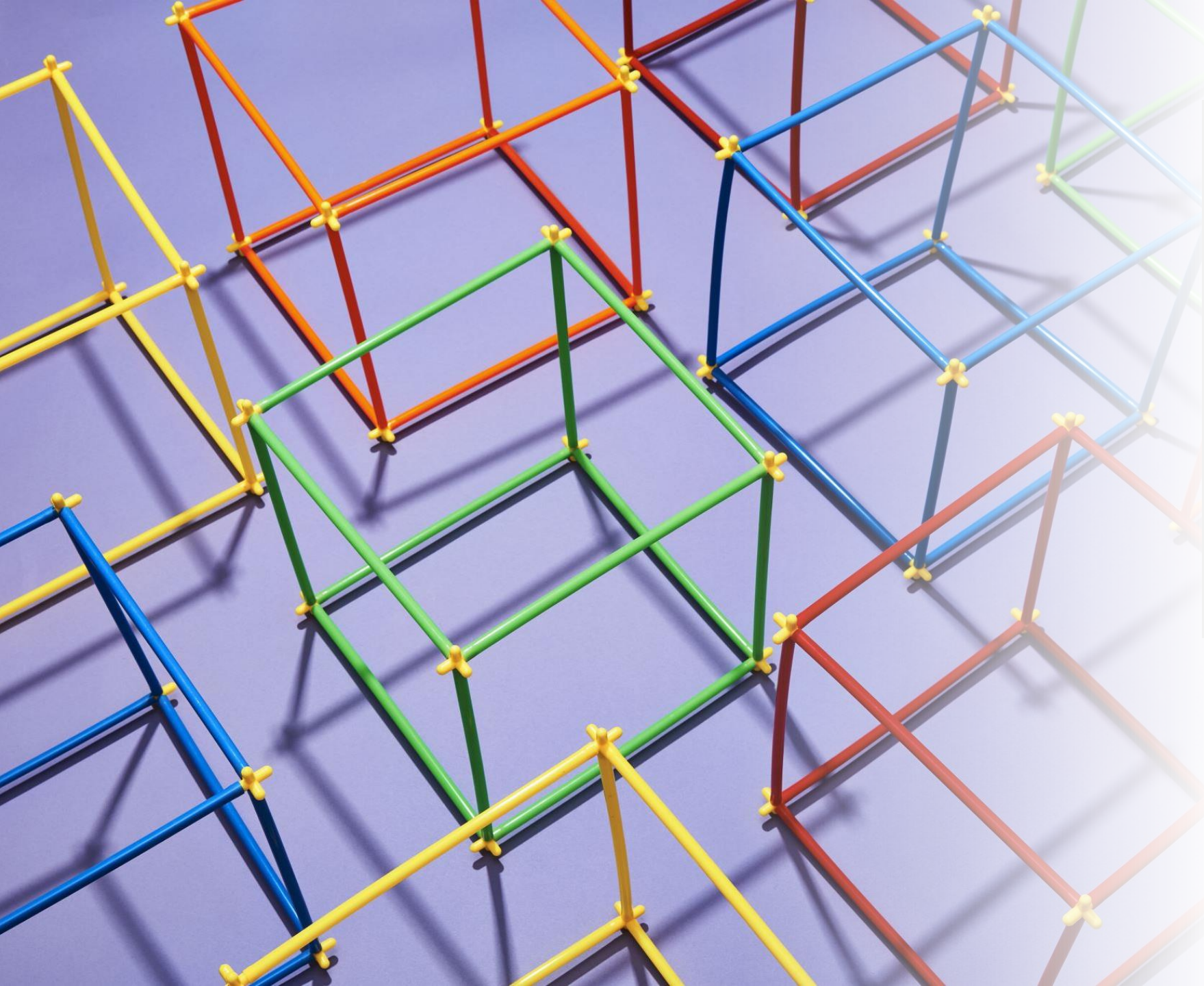
Chemgene Disinfectant

After a review of the existing formulas and extensive testing, launch a new range of multi-surface disinfectants

Replace and combine the properties of Chemgene Laboratory (HLD4L) and Chemgene Medical (HLD4H).

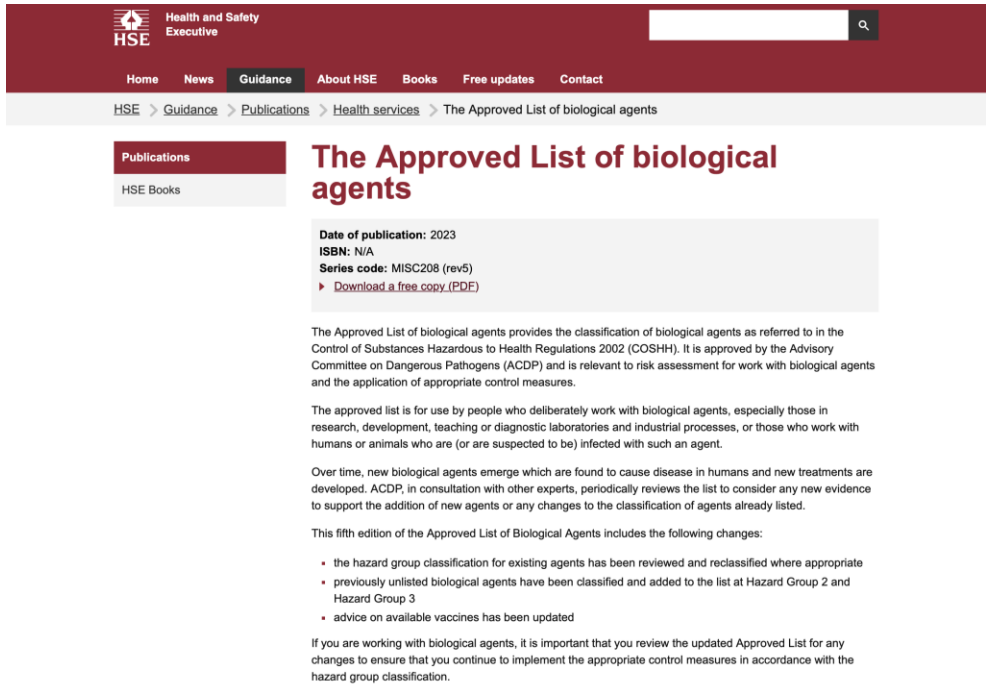
If used as validated means of disinfection, check new formula works (data sheet) and possible re-validation!

https://www.starlabgroup.com/Documents/std.lang.all/11335091.pdf



Contingency planning.

- Phones using IP lines rely on internet access.
- Might need to rethink contingency plan for situations where internet access is disrupted.
- Example of CL3 lab at CITIID following cyber incident. CITIID has particularly bad mobile phone connectivity
- Also highlights importance of data security and our reliance on IT systems. – Tscan, CCTV, Building Management Systems



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HSE > Guidance > Publications > Health services > The Approved List of biological agents

Publications

HSE Books

The Approved List of biological agents

Date of publication: 2023
ISBN: N/A
Series code: MISC208 (rev5)
Download a free copy (PDF)

The Approved List of biological agents provides the classification of biological agents as referred to in the Control of Substances Hazardous to Health Regulations 2002 (COSHH). It is approved by the Advisory Committee on Dangerous Pathogens (ACDP) and is relevant to risk assessment for work with biological agents and the application of appropriate control measures.

The approved list is for use by people who deliberately work with biological agents, especially those in research, development, teaching or diagnostic laboratories and industrial processes, or those who work with humans or animals who are (or are suspected to be) infected with such an agent.

Over time, new biological agents emerge which are found to cause disease in humans and new treatments are developed. ACDP, in consultation with other experts, periodically reviews the list to consider any new evidence to support the addition of new agents or any changes to the classification of agents already listed.

This fifth edition of the Approved List of Biological Agents includes the following changes:

- the hazard group classification for existing agents has been reviewed and reclassified where appropriate
- previously unlisted biological agents have been classified and added to the list at Hazard Group 2 and Hazard Group 3
- advice on available vaccines has been updated

If you are working with biological agents, it is important that you review the updated Approved List for any changes to ensure that you continue to implement the appropriate control measures in accordance with the hazard group classification.

Advisory Committee on Dangerous Pathogens approved list

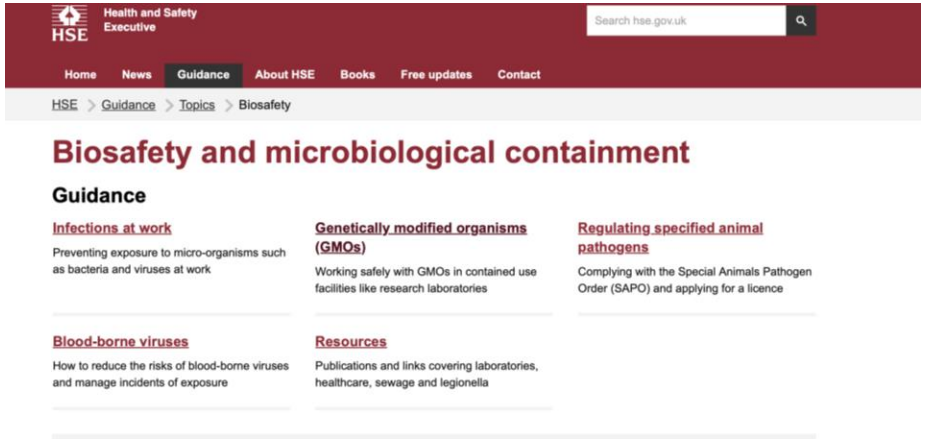
Updated December 2023,

Most notable change Plasmodium knowlesi is now CL3

Many previously unlisted pathogens have been added.

If working with CL2 or novel pathogens, check whether the updates affect work at your department.

https://www.hse.gov.uk/pubns/misc208.htm



HSE biosafety inspector Maria Taraktsoglou,

planning a series of short visits to inspect

CL3,

Schedule 5

higher risk GM work.

Initial planning meeting on Wednesday 8th May.

https://www.hse.gov.uk/biosafety/