



University Occupational Health and Safety Guidance Notes

WORKING WITH SCHEDULE 5 PATHOGENS AND TOXINS

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1. PURPOSE

The [Anti-Terrorism, Crime and Security Act 2001 \(Amended 2007\)](#) (ATCSA) reasonably ensures that the Government has legislative powers to counter terrorist threat to the UK. Part 7 (Security of Pathogens and Toxins) of the ATCSA makes provisions for the control of certain pathogens and toxins in light of acts of terrorism and crime that may act to breach UK security. It imposes on premises the requirement to notify the Home Office (who work with the National Counter Terrorism Security Office, NaCTSO) with information regarding the holdings of biological agents listed in Schedule 5 of the Act. The Secretary of State may deny any specific identified person access to Schedule 5 pathogens and toxins on the premises. In addition an Officer may, on giving notice, enter a premise to assess the measures being taken to ensure the security of any dangerous substance kept or used in the premises.

This document should be used in conjunction with the Occupational Health and Safety Biological Safety Standard.

2. ABBREVIATIONS

ATCSA	Anti-Terrorism, Crime and Security Act
CTSA	Counter Terrorism Security Adviser
HoD	Head of Department
NaCTSO	National Counter Terrorism and Security Officer
SHaW	Occupational Health, Safety and Wellbeing
PI	Principle Investigator
SAPO	Specified Animal Pathogen Order
UBSA	University Biological Safety Adviser

3. SPECIFIC RESPONSIBILITIES

3.1 Counter Terrorism Security Advisers

Counter Terrorism Security Advisers, based at local police stations, have a role in providing help, advice and guidance on all aspects of the counter terrorism protective security to specified industry sectors.

3.2 Head of Department

The HoD is responsible for notifying the UBSA of any holdings of Schedule 5 pathogens and toxins by annual return. This responsibility may be delegated to the Departmental Safety Convenor, Departmental Biological Safety Co-ordinator or other nominated person.

3.3 University Biological Safety Advisor

The UBSA is responsible for:

- liaising with PIs and the UBSA to ensure that any required notifications to the Home Office are made in a timely manner prior to the Schedule 5 agent being brought onto the University premises;
- liaising with University Security and the NaCTSO and local CTSA's to ensure that the proposed design and methods of security for agents held under Schedule 5 list are adequate;
- issuing an annual request for a return on the holding of Schedule 5 agents via individual HoDs.

3.4 Principle Investigators / Line Managers

PIs or line managers are responsible for:

- notifying their DSC and the UBSA of their intention to bring relevant material into the University;
- ensuring that notification to the Home Office is made prior to the Schedule 5 agent being brought on to the premises;
- ensuring the safe and secure storage, use, transport and disposal of any Schedule 5 pathogens and toxins;
- ensuring that a log book of holdings of Schedule 5 pathogens and toxins is kept;

- ensuring that they, and any other personnel working within their area of responsibility has registered the Schedule 5 agent(s) that they are working with on the BP1 system and that work is approved prior to it commencing.

3.5 All Users of Schedule 5 Pathogens and Toxins

All users of Schedule 5 pathogens and toxins should ensure that they are stored securely. A log book of the holdings of each Schedule 5 pathogen or toxin should be kept safely and securely within the laboratory and, upon each use, should at a minimum detail the user name, date, quantity used, and disposal route. Waste should be disposed of safely and appropriately in a manner dependent on the type of pathogen or toxin being disposed of.

4. SCHEDULE 5 LIST OF PATHOGENS AND TOXINS

4.1 Schedule 5 pathogens

Any reference to micro-organisms in the list includes:

- Intact micro-organisms;
- Micro-organisms which have been genetically modified by any means, but retain the ability to cause serious harm to human or animal health;
- Any nucleic acid deriving from a micro-organism listed in this Schedule (synthetic or naturally derived, contiguous or fragmented, in host chromosomes or in expression vectors) that can encode infectious or replication competent forms of any of the listed micro-organisms;
- Any nucleic acid sequence derived from the micro-organism which, when inserted into any other living organism, alters or enhances that organism's ability to cause serious harm to human or animal health.

4.2 Schedule 5 toxins

Any reference to toxins in the list includes:

- Any nucleic acid sequence coding for the toxin;
- Any genetically modified organism containing any such sequence;
- Any reference above to a toxin excludes any non-toxigenic subunit.

4.3 Exceptions

Exceptions apply under the following conditions (see [The Security of Pathogens and Toxins \(Exceptions to Dangerous Substances\) Regulations 2002](#) for full details):

In the case of a pathogen or toxin, those conditions are:

- that it exists in the form of, or is included in, a medicinal product; or
- that it is an immunological product intended to diagnose whether a state of immunity to certain diseases exists in human beings or animals.

In the case of a pathogen, those conditions are:

- that it is modified for use to be administered to one or more human beings or animals for a medicinal purpose; or
- that it is kept in such a way that it is no longer in a state that will allow it to be propagated; or
- that it is kept as part of a clinical specimen for diagnostic purposes, and for no longer than is reasonably practicable for its disposal after the time when the diagnosis has been made.

In the case of a toxin which is neither a botulinum toxin nor a clostridium perfringens toxin (other than clostridium perfringens alphatoxin), those conditions are:

- that, in the case of premises which are not divided into secure parts, the amount of the toxin in question kept at any particular premises does not exceed 5 mg (whether or not the amount of that toxin taken together with any other toxin at those premises exceeds that amount); or

- that the amount of the toxin in question kept at any particular secure part of any premises does not exceed 5 mg (whether or not the amount of that toxin taken together with either
 - (i) any other toxin kept at the same secure part, or
 - (ii) the same or any other toxin kept at another secure part of the premises in question, exceeds that amount).

In the case of any toxin, those conditions are:

- that it exists only as an immunotoxin; or
- that it has not been deliberately isolated or extracted from its natural source.

4.4 The list of Schedule 5 pathogens and toxins

The following list of Schedule 5 pathogens and toxins are correct at the date of issue. The full list and details of any amendments can be found on the [government website](#).

Viruses
Chikungunya virus
Congo-Crimean haemorrhagic fever virus
Dengue fever virus
Dobrava / Belgrade virus
Eastern equine encephalitis virus
Ebola virus
Everglades virus
Getah virus
Guanarito virus
Hantaan virus
Hendra virus (Equine morbillivirus) * also SAPO
Herpes simiae (B virus)
Influenza viruses (pandemic strains)
Japanese encephalitis virus
Junin virus
Kyasanur Forest virus
Lassa fever virus
Louping ill virus
Lymphocytic choriomeningitis virus
Machupo virus
Marburg virus
Mayaro virus
Middleburg virus
Mobala virus
Monkey pox virus
Mucambo virus
Murray Valley encephalitis virus
Ndumu virus
Nipah virus * also SAPO
Omsk haemorrhagic fever virus
Polio virus
Powassan virus
Rabies virus * also SAPO
Rift Valley fever virus * also SAPO
Rocio virus
Sabia virus
Sagiyama virus
SARS Coronavirus
Sin Nombre virus
St Louis encephalitis virus * also SAPO
Tick-borne encephalitis virus (Far eastern encephalitis, formerly Russian Spring summer encephalitis virus)
Variola virus

Venezuelan equine encephalitis virus * **also SAPO**
Western equine encephalitis virus * **also SAPO**
West Nile fever virus * **also SAPO**
Yellow fever virus

Rickettsiae

Coxiella burnetii
Rickettsia prowazeki
Rickettsia rickettsii
Rickettsia typhi (mooseri)

Bacteria

Bacillus anthracis * **also SAPO**
Brucella abortus * **also SAPO**
Brucella canis
Brucella melitensis * **also SAPO**
Brucella suis * **also SAPO**
Burkholderia mallei (Pseudomonas mallei) * **also SAPO**
Burkholderia pseudomallei (Pseudomonas pseudomallei)
Chlamydomphila psittaci
Clostridium botulinum
Enterohaemorrhagic Escherichia coli serotype 0157 and verotoxin producing strains
Francisella tularensis
Multiple-drug resistant Salmonella paratyphi
Salmonella paratyphi A, B, C
Salmonella typhi
Shigella boydii
Shigella dysenteriae
Shigella flexneri
Vibrio cholerae
Yersinia pestis

Toxins

Abrin
Botulinum toxins
Clostridium perfringens epsilon toxin
Clostridium perfringens enterotoxin
Conotoxin
Modeccin toxin
Ricin
Saxitoxin
Shiga and shiga-like toxins
Staphylococcal enterotoxins
Tetrodotoxin
Viscum Album Lectin 1 (Viscumin)
Volkensin toxin

Specified Animal Pathogens (SAPO only)

African horse sickness virus
African swine fever virus
Bluetongue virus
Classical swine fever virus
Foot and mouth disease virus
Goat pox virus
Hendra virus (Equine morbillivirus)
Highly pathogenic avian influenza (HPAI) as defined in Annex I(2) of Council Directive 005/94/EC
Lumpy skin disease virus

Mycoplasma mycoides mycoides (Contagious bovine pleuropneumonia)
Newcastle disease virus
Peste des petits ruminants virus
Rift Valley fever virus
Rabies and rabies-related Lyssaviruses
Rinderpest virus
Sheep pox virus
Swine vesicular disease virus
Vesicular stomatitis virus