

List of Biological Agents for Export Control

Core List^[1]

June 2011

Viruses

1. Andes virus
2. Chapare virus
3. Chikungunya virus
4. Choclo virus
5. Congo-Crimean haemorrhagic fever virus
6. Dengue fever virus
7. Dobrava-Belgrade virus
8. Eastern equine encephalitis virus
9. Ebola virus
10. Guanarito virus
11. Hantaan virus
12. Hendra virus (Equine morbillivirus)
13. Japanese encephalitis virus
14. Junin virus
15. Kyasanur Forest virus
16. Laguna Negra virus
17. Lassa fever virus
18. Louping ill virus
19. Lujo virus
20. Lymphocytic choriomeningitis virus
21. Machupo virus
22. Marburg virus
23. Monkey pox virus
24. Murray Valley encephalitis virus
25. Nipah virus
26. Omsk haemorrhagic fever virus
27. Oropouche virus
28. Powassan virus
29. Rift Valley fever virus
30. Rocio virus
31. Sabia virus
32. Seoul virus
33. Sin nombre virus
34. St Louis encephalitis virus

35. Tick-borne encephalitis virus (Russian Spring-Summer encephalitis virus)
36. Variola virus
37. Venezuelan equine encephalitis virus
38. Western equine encephalitis virus
39. Yellow fever virus

Bacteria

1. Bacillus anthracis
2. Brucella abortus
3. Brucella melitensis
4. Brucella suis
5. Chlamydophila psittaci (formerly known as Chlamydia psittaci)
6. Clostridium botulinum
7. Francisella tularensis
8. Burkholderia mallei (Pseudomonas mallei)
9. Burkholderia pseudomallei (Pseudomonas pseudomallei)
10. Salmonella typhi
11. Shigella dysenteriae
12. Vibrio cholerae
13. Yersinia pestis
14. Clostridium perfringens, epsilon toxin producing types^[2]
15. Enterohaemorrhagic Escherichia coli, serotype O157 and other verotoxin producing serotypes
16. Coxiella burnetii
17. Rickettsia prowazekii

Toxins as follow and subunits thereof:^[3]

1. Botulinum toxins^[4]
2. Clostridium perfringens toxins
3. Conotoxin^[4]
4. Ricin
5. Saxitoxin
6. Shiga toxin
7. Staphylococcus aureus toxins
8. Tetrodotoxin
9. Verotoxin and shiga-like ribosome inactivating proteins
10. Microcystin (Cyanginosin)
11. Aflatoxins
12. Abrin
13. Cholera toxin

14. Diacetoxyscirpenol toxin
15. T-2 toxin
16. HT-2 toxin
17. Modeccin toxin
18. Volkensin toxin
19. Viscum Album Lectin 1 (Viscumin)

Fungi

1. *Coccidioides immitis*
2. *Coccidioides posadasii*

[1] Biological agents are controlled when they are an isolated live culture of a pathogen agent, or a preparation of a toxin agent which has been isolated or extracted from any source, or material including living material which has been deliberately inoculated or contaminated with the agent. Isolated live cultures of a pathogen agent include live cultures in dormant form or in dried preparations, whether the agent is natural, enhanced or modified.

An agent is covered by this list except when it is in the form of a vaccine. A vaccine is a medicinal product in a pharmaceutical formulation licensed by, or having marketing or clinical trial authorisation from, the regulatory authorities of either the country of manufacture or of use, which is intended to stimulate a protective immunological response in humans or animals in order to prevent disease in those to whom or to which it is administered.

[2] It is understood that limiting this control to epsilon toxin-producing strains of *Clostridium perfringens* therefore exempts from control the transfer of other *Clostridium perfringens* strains to be used as positive control cultures for food testing and quality control.

[3] Excluding immunotoxins.

[4] Excluding botulinum toxins and conotoxins in product form meeting all of the following criteria:

- are pharmaceutical formulations designed for testing and human administration in the treatment of medical conditions;
- are pre-packaged for distribution as clinical or medical products; and
- are authorised by a state authority to be marketed as clinical or medical products.

Genetic Elements and Genetically-modified Organisms:

1. Genetic elements that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.
2. Genetic elements that contain nucleic acid sequences coding for any of the toxins in the list, or for their sub-units.
3. Genetically-modified organisms that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.
4. Genetically-modified organisms that contain nucleic acid sequences coding for any of the toxins in the list or for their sub-units.

Technical note:

Genetically-modified organisms includes organisms in which the genetic material (nucleic acid sequences) has been altered in a way that does not occur naturally by mating and/or natural recombination, and encompasses those produced artificially in whole or in part.

Genetic elements include inter alia chromosomes, genomes, plasmids, transposons, and vectors whether genetically modified or unmodified, or chemically synthesized in whole or in part.

Nucleic acid sequences associated with the pathogenicity of any of the micro-organisms in the list means any sequence specific to the relevant listed micro-organism:

- that in itself or through its transcribed or translated products represents a significant hazard to human, animal or plant health; or
- that is known to enhance the ability of a listed micro-organism, or any other organism into which it may be inserted or otherwise integrated, to cause serious harm to human, animal or plant health.

These controls do not apply to nucleic acid sequences associated with the pathogenicity of enterohaemorrhagic *Escherichia coli*, serotype O157 and other verotoxin producing strains, other than those coding for the verotoxin, or for its sub-units.

Warning List^[1]

Bacteria

1. *Clostridium tetani**
2. *Legionella pneumophila*
3. *Yersinia pseudotuberculosis*

* Australia Group recognises that this organism is ubiquitous, but, as it has been acquired in the past as part of biological warfare programs, it is worthy of special caution.

Fungi

1. *Fusarium sporotrichioides*
2. *Fusarium langsethiae*

^[1] Biological agents are controlled when they are an isolated live culture of a pathogen agent, or a preparation of a toxin agent which has been isolated or extracted from any source, or material including living material which has been deliberately inoculated or contaminated with the agent. Isolated live cultures of a pathogen agent include live cultures in dormant form or in dried preparations, whether the agent is natural, enhanced or modified.

An agent is covered by this list except when it is in the form of a vaccine. A vaccine is a medicinal product in a pharmaceutical formulation licensed by, or having marketing or clinical trial authorisation from, the regulatory authorities of either the country of manufacture or of use, which is intended to stimulate a protective immunological response in humans or animals in order to prevent disease in those to whom or to which it is administered.

Genetic Elements and Genetically-modified Organisms:

1. Genetic elements that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.
2. Genetic elements that contain nucleic acid sequences coding for any of the toxins in the list, or for their sub-units.
3. Genetically-modified organisms that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.
4. Genetically-modified organisms that contain nucleic acid sequences coding for any of the toxins in the list or for their sub-units.

Technical note:

Genetically-modified organisms includes organisms in which the genetic material (nucleic acid sequences) has been altered in a way that does not occur naturally by mating and/or natural recombination, and encompasses those produced artificially in whole or in part.

Genetic elements include inter alia chromosomes, genomes, plasmids, transposons, and vectors whether genetically modified or unmodified, or chemically synthesized in whole or in part.

Nucleic acid sequences associated with the pathogenicity of any of the micro-organisms in the list means any sequence specific to the relevant listed micro-organism:

- that in itself or through its transcribed or translated products represents a significant hazard to human, animal or plant health; or
- that is known to enhance the ability of a listed micro-organism, or any other organism into which it may be inserted or otherwise integrated, to cause serious harm to human, animal or plant health.

