



Consejo de Seguridad

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Carta de fecha 13 de octubre de 2006 dirigida al Presidente del Consejo de Seguridad por el Representante Permanente de Francia ante las Naciones Unidas

Tengo el honor de transmitir adjunta una lista de artículos, materiales, equipo, bienes y tecnología vinculados con los programas de otras armas de destrucción en masa (véase anexo).

Le agradecería que tuviera a bien tomar las disposiciones necesarias para hacer distribuir la lista como documento del Consejo de Seguridad.

(Firmado) Jean-Marc **La Sablière**
Representante Permanente



**Anexo de la carta de fecha 13 de octubre de 2006 dirigida
al Presidente del Consejo de Seguridad por el Representante
Permanente de Francia ante las Naciones Unidas**

[Original: inglés]

**Lista de artículos, materiales, equipo, bienes y tecnología
vinculados con los programas de otras armas de destrucción
en masa**

PRECURSOR CHEMICAL

	CAS NO. CWC-SCHEDULE
1. Thiodiglycol	111-48-8) 2B
2. Phosphorus oxychloride	(10025-87-3) 3B
3. Dimethyl methylphosphonate	(756-79-6) 2B
4. Methylphosphonyl difluoride (DP)	(676-99-3) 1B
5. Methylphosphonyl dichloride (DC)	(676-97-1) 2B
6. Dimethyl phosphite (DMP)	(868-85-9) 3B
7. Phosphorus trichloride	(7719-12-2) 3B
8. Trimethyl phosphite (TMP)	(121-45-9) 3B
9. Thionyl chloride	(7719-09-7) 3B
10. 3-Hydroxy-1-methylpiperidine	(3554-74-3)
Not Listed 11. N,N-Diisopropyl-(beta)-aminoethyl chloride	(96-79-7) 2B 12.
N,N-Diisopropyl-(beta)-aminoethane thiol	(5842-07-9) 2B
13. 3-Quinuclidinol	(1619-34-7) 2B
14. Potassium fluoride	(7789-23-3)
Not Listed 15. 2-Chloroethanol	(107-07-3)
Not Listed 16. Dimethylamine	(124-40-3)
Not Listed 17. Diethyl ethylphosphonate	(78-38-6) 2B
18. Diethyl N,N-dimethylsophoramidate	(2404-03-7) 2B
19. Diethyl phosphite	(762-04-9) 3B
20. Dimethylamine hydrochloride	(506-59-2)
Not Listed 21. Ethylphosphinyl dichloride	(1498-40-4) 2B
22. Ethylphosphonyl dichloride	(1066-50-8) 2B
23. Ethylphosphonyl difluoride	(753-98-0) 1B
24. Hydrogen fluoride	(7664-39-3)
Not Listed 25. Methyl benzilate	(76-89-1)
Not Listed 26. Methylphosphinyl dichloride	(676-83-5) 2B
27. N,N-Diisopropyl-(beta)-amino-ethanol	(96-80-0) 2B

28. Pinacolyl alcohol	(464-07-3) 2B
29. 0-Ethyl 2-diisopropylaminoethyl methylphosphonite	(57856-11-8) 1B
30. Triethyl phosphite	(122-52-1) 3B
31. Arsenic trichloride	(7784-34-1) 2B
32. Benzilic acid	(76-93-7) 2B
33. Diethyl methylphosphonite	(15715-41-0) 2B
34. Dimethyl ethylphosphonate	(6163-75-3) 2B
35. Ethylphosphinyl difluoride	(430-78-4) 2B
36. Methylphosphinyl difluoride	(753-59-3) 2B
37. 3-Quinuclidone	(3731-38-2)
Not Listed 38. Phosphorus pentachloride	(10026-13-8) 3B
39. Pinacolone	(75-97-8)
Not Listed 40. Potassium cyanide	(151-50-8)
Not Listed 41. Potassium bifluoride	(7789-29-9)
Not Listed 42. Ammonium bifluoride	(1341-49-7)
Not Listed 43. Sodium bifluoride	(1333-83-1)
Not Listed 44. Sodium fluoride	(7681-49-4)
Not Listed 45. Sodium cyanide	(143-33-9)
Not Listed 46. Triethanolamine	(102-71-6) 3B
47. Phosphorus pentasulphide	(1314-80-3)
Not Listed 48. Diisopropylamine	(108-18-9)
Not Listed 49. Diethylaminoethanol	(100-37-8)
Not Listed 50. Sodium sulphide	(1313-82-2)
Not Listed 51. Sulphur monochloride	(10025-67-9) 3B
52. Sulphur dichloride	(10545-99-0) 3B
53. Triethanolamine hydrochloride	(637-39-8)
Not Listed 54.	
N,N-Diisopropyl-1-2-aminoethyl chloride hydrochloride	(4261-68-1) 2B
55. Methylphosphonic acid	(993-13-5) 2B
56. Diethyl methylphosphonate	(683-08-9) 2B
57. N,N-Dimethylaminophosphoryl dichloride	(677-43-0) 2B
58. Triisopropyl phosphite	(116-17-6)
Not Listed 59. Ethyldiethanolamine	(139-87-7) 3B
60. O,O-Diethyl phosphorothioate	(2465-65-8)
Not Listed 61. O,O-Diethyl phosphorodithioate	(298-06-6)
Not Listed 62. Sodium hexafluorosilicate	(16893-85-9)
Not Listed 63. Methylphosphonothioic dichloride	(676-98-2) 2B

CONTROL LIST: OF DUAL-USE CHEMICAL MANUFACTURING FACILITIES AND EQUIPMENT AND RELATED TECHNOLOGY

I. MANUFACTURING FACILITIES AND EQUIPMENT

Note 1. The objective of these controls should not be defeated by the transfer of any non-controlled item containing one or more controlled components where the controlled component or components are the principal element of the item and can feasibly be removed or used for other purposes.

N.B. In judging whether the controlled component or components are to be considered the principal element, governments should weigh the factors of quantity, value, and technological know-how involved and other special circumstances which might establish the controlled component or components as the principal element of the item being procured.

Note 2. The objective of these controls should not be defeated by the transfer of a whole plant, on any scale, which has been designed to produce any CVO agent or AG-controlled precursor chemical.

1. Reaction Vessels, Reactors or Agitators

Reaction vessels or reactors, with or without agitators, with total internal (geometric) volume greater than 0.1 m³ (100 l) and less than 20 m³ (20000 l), where all surfaces that come in direct contact with the chemical(s) being processed or contained are made from the following materials:

- (a) nickel or alloys with more than 40% nickel by weight;
- (b) alloys with more than 25% nickel and 20% chromium by weight;
- (c) fluoropolymers;
- (d) glass or glass-lined (including vitrified or enamelled coating);
- (e) tantalum or tantalum alloys;
- (f) titanium or titanium alloys;
- (g) zirconium or zirconium alloys; or
- (h) niobium (columbium) or niobium alloys.

Agitators for use in the above-mentioned reaction vessels or reactors; and impellers, blades or shafts designed for such agitators, where all surfaces of the agitator or component that come in direct contact with the chemical(s) being processed or contained are made from the following materials:

- (a) nickel or alloys with more than 40% nickel by weight;
- (b) alloys with more than 25% nickel and 20% chromium by weight;
- (c) fluoropolymers;
- (d) glass or glass-lined (including vitrified or enamelled coating);
- (e) tantalum or tantalum alloys;
- (f) titanium or titanium alloys;
- (g) zirconium or zirconium alloys; or
- (h) niobium (columbium) or niobium alloys.

2. Storage Tanks, Containers or Receivers

Storage tanks, containers or receivers with a total internal (geometric) volume greater than 0.1 m³ (100 l) where all surfaces that come in direct contact with the chemical(s) being processed or contained are made from the following materials:

- (a) nickel or alloys with more than 40% nickel by weight;
- (b) alloys with more than 25% nickel and 20% chromium by weight;
- (c) fluoropolymers;
- (d) glass or glass-lined (including vitrified or enamelled coating);
- (e) tantalum or tantalum alloys;
- (f) titanium or titanium alloys;
- (g) zirconium or zirconium alloys; or
- (h) niobium (columbium) or niobium alloys.

3. Heat Exchangers or Condensers

Heat exchangers or condensers with a heat transfer surface area of greater than 0.15 m², and less than 20 m²; and tubes, plates, coils or blocks (cores) designed for such heat exchangers or condensers, where all surfaces that come in direct contact with the chemical(s) being processed are made from the following materials:

- (a) nickel or alloys with more than 40% nickel by weight;
- (b) alloys with more than 25% nickel and 20% chromium by weight;
- (c) fluoropolymers;
- (d) glass or glass-lined (including vitrified or enamelled coating);
- (e) graphite or carbon-graphite;
- (f) tantalum or tantalum alloys;
- (g) titanium or titanium alloys;
- (h) zirconium or zirconium alloys;
- (i) silicon carbide;
- (j) titanium carbide; or
- (k) niobium (columbium) or niobium alloys.

Technical note: carbon-graphite is a composition consisting of amorphous carbon and graphite, in which the graphite content is eight percent or more by weight.

4. Distillation or Absorption Columns

Distillation or absorption columns of internal diameter greater than 0.1 m; and liquid distributors, vapour distributors or liquid collectors designed for such distillation or absorption columns, where all surfaces that come in direct contact with the chemical(s) being processed are made from the following materials:

- (a) nickel or alloys with more than 40% nickel, by weight;
- (b) alloys with more than 25% nickel and 20% chromium by weight;
- (c) fluoropolymers;
- (d) glass or glass-lined (including vitrified or enamelled coating);
- (e) graphite or carbon-graphite;

- (f) tantalum or tantalum alloys;
- (g) titanium or titanium alloys;
- (h) zirconium or zirconium alloys; or
- (i) niobium (columbium) or niobium alloys.

Technical note: carbon-graphite is a composition consisting of amorphous carbon and graphite, in which the graphite content is eight percent or more by weight.

5. Filling Equipment

Remotely operated filling equipment in which all surfaces that come in direct contact with the chemical(s) being processed are made from the following materials:

- (a) nickel or alloys with more than 40% nickel by weight; or
- (b) alloys with more than 25% nickel and 20% chromium by weight.

6. Valves

Valves with nominal sizes greater than 1.0 cm (3/8") and casings (valve bodies) or preformed casing liners designed for such valves, in which all surfaces that come in direct contact with the chemical(s) being produced, processed, or contained are made from the following materials:

- (a) nickel or alloys with more than 40% nickel by weight;
- (b) alloys with more than 25% nickel and 20% chromium by weight;
- (c) fluoropolymers;
- (d) glass or glass-lined (including vitrified or enamelled coating);
- (e) tantalum or tantalum alloys;
- (f) titanium or titanium alloys;
- (g) zirconium or zirconium alloys; or
- (h) niobium (columbium) or niobium alloys.

7. Multi-Walled Piping

Multi-walled piping incorporating a leak detection port, in which all surfaces that come in direct contact with the chemical(s) being processed or contained are made from the following materials:

- (a) nickel or alloys with more than 40% nickel by weight;
- (b) alloys with more than 25% nickel and 20% chromium by weight;
- (c) fluoropolymers;
- (d) glass or glass-lined (including vitrified or enamelled coating);
- (e) graphite or carbon-graphite;
- (f) tantalum or tantalum alloys;
- (g) titanium or titanium alloys;
- (h) zirconium or zirconium alloys; or
- (i) niobium (columbium) or niobium alloys.

Technical note: carbon-graphite is a composition consisting of amorphous carbon and graphite, in which the graphite-content is eight percent or more by weight.

8. Pumps

Multiple-seal and seal-less pumps with manufacturer's specified maximum flow-rate greater than 0,6 m³/h, or vacuum pumps with manufacturer's specified maximum flow-rate greater than 5 m³/h (under standard temperature (273 K (0o C)) and pressure (101.3 kPa) conditions), and casings (pump bodies), preformed casing liners, impellers, rotors or jet pump nozzles designed for such pumps, in which all surfaces that come into direct contact with the chemical(s) being processed are made from any of the following materials:

- a. nickel or alloys with more than 40% nickel by weight;
- b. alloys with more than 25% nickel and 20% chromium by weight;
- c. fluoropolym era;
- d. glass or glass-lined (including vitrified or enamelled coating);
- e. graphite or carbon-graphite;
- f. tantalum or tantalum alloys;
- g. titanium or titanium alloys;
- h. zirconium or zirconium alloys;
- i. ceramics;
- j. ferrosilicon; or
- k. niobium (columbium) or niobium alloys.

Technical note: carbon-graphite is a composition consisting of amorphous carbon and graphite, in which the graphite content is eight percent or more by weight.

9. Incinerators

Incinerators designed to destroy CW agents, AG-controlled precursors or chemical munitions, having specially designed waste Supply systems, special handling facilities, and an average combustion chamber temperature greater than 1000o C, in which all surfaces in the waste supply system that come into direct contact with the waste products are made from or lined • with the following materials:

- (a) nickel or alloys with more than 40% nickel by weight;
- (b) alloys with more than 25% nickel and 20% chromium by weight; or
- (c) ceramics.

Statement of Understanding

These controls do not apply to equipment which is specially designed for use in civil applications (for example food processing, pulp and paper processing, or water purification, etc) and is, by the nature of its design, inappropriate for use in storing, processing, producing or conducting and controlling the flow of chemical warfare agents or any of the AG-controlled precursor chemicals,

II. TOXIC GAS MONITORING SYSTEMS AND DETECTORS

Toxic gas monitoring systems and dedicated detectors

- (a) designed for continuous operation and usable for the detection of chemical warfare

agents or AG-controlled precursors at concentrations of less than 0.3 mg/m³; or

- designed for the detection of cholinesterase-inhibiting activity.

III. RELATED TECHNOLOGY

The transfer of 'technology', including licenses, directly associated with -

- CW agents;
- AG-controlled precursors; or
- AG-controlled dual-use equipment items,

to the extent permitted by national legislation.

Technical assistance is subject to control. Controls on 'technology' transfer, including 'technical assistance', do not apply to information 'in the public domain' or to 'basic scientific research' or the minimum necessary information for patent application.

The approval for export of any AG-controlled item of dual-use equipment also authorises the export to the same end-user of the minimum 'technology' required for the installation, operation, maintenance or repair of that item.

Definition of Terms

'Technology'

Specific information necessary for the 'development', 'production' or 'use' of a product. The information takes the form of 'technical data' or 'technical assistance'.

'Basic scientific research'

Experimental or theoretical work undertaken principally to acquire new knowledge of the fundamental principles of phenomena or observable facts, not primarily directed towards a specific practical aim or objective.

'Development'

'Development' is related to all phases before 'production' such as:

- design
- design research
- design analysis
- design concepts
- assembly of prototypes
- pilot production schemes
- design data
- process or transforming design data into a product configuration design
- integration design
- layouts

'in the public domain'

‘In the public domain’, as it applies herein, means technology that has been made available without restrictions upon its further dissemination. (Copyright restrictions do not remove technology from being in the public domain).

Production’

Production means all production phases such as:

- construction
- production engineering
- manufacture
- integration
- assembly (mounting)
- inspection
- testing
- quality assurance

‘Technical assistance’

May take forms, such as: instruction, skills, training, working knowledge, consulting services,

N.B. ‘Technical assistance’ may involve transfer of ‘technical data’. ‘Technical data’

May take forms such as blueprints, plans, diagrams, models, formulae, tables, engineering designs and specifications, manuals and instructions written or recorded on other media or devices such as disk, tape, read-only memories.

‘Use’

Operation, installation (including on-site installation), maintenance (checking), repair, overhaul or refurbishing.

‘Export’

An actual shipment or transmission of AG-controlled items out of the country, This includes transmission of technology by electronic media, fax or telephone.

CONTROL LIST OF DUAL-USE BIOLOGICAL EQUIPMENT AND RELATED TECHNOLOGY

I. Equipment

1. Complete containment facilities at P3 or P4 containment level

Complete containment facilities that meet the criteria for P3 or P4 (BL3, BL4, L3, L4) containment as specified in the WHO Laboratory Biosafety manual (2nd edition, Geneva, 1993) should be subject to export control.

2. Fermenters

Fermenters capable of cultivation of pathogenic micro-organisms, viruses or for toxin production, without the propagation of aerosols, having a capacity of 20 litres or greater. Fermenters include bioreactors, chemostats and continuous-flow systems.

3. Centrifugal Separators

Centrifugal separators capable of the continuous separation of pathogenic micro-organisms, without the propagation of aerosols, and having all the following characteristics:

- a. one or more sealing joints within the steam containment area;
- b. a flow rate greater than 100 litres per hour;
- c. components of polished stainless steel or titanium;
- d. capable of in-situ steam sterilisation in a closed state.

Technical note: Centrifugal separators include decanters.

4. Cross (tangential) Flow Filtration Equipment

Cross (tangential) flow filtration equipment capable of separation of pathogenic micro-organisms, viruses, toxins or cell cultures, without the propagation of aerosols, having all the following characteristics:

- a total filtration area equal to or greater than 1 square metre;
- capable of being sterilized or disinfected in-situ.

(N.B. This control excludes reverse osmosis equipment, as specified by the manufacturer.)

Cross (tangential)flow filtration components (eg modules, elements, cassettes, cartridges, units or plates) with filtration area equal to or greater than 0.2 square metres for each component and designed for use in cross (tangential) flow filtration equipment as specified above.

Technical note: In this control, 'sterilized' denotes the elimination of all viable microbes from the equipment through the use of either physical (eg steam) or chemical agents. 'Disinfected' denotes the destruction of potential microbial infectivity in the equipment through the use of chemical agents with a germicidal effect. 'Disinfection' and 'sterilization' are distinct from 'sanitization', the latter referring to cleaning procedures designed to lower the microbial content of equipment without necessarily achieving elimination of all microbial infectivity or viability.

5. Freeze-drying Equipment

Steam sterilisable freeze-drying equipment with a condenser capacity of 10 kgs of ice or greater in 24 hours and less than 1000 kgs of ice in 24 hours.

6. Protective and containment equipment as follows:

- a. protective full or half suits, or hoods dependent upon a tethered external air supply and operating under positive pressure;

Technical note: This does not control suits designed to be worn with self-contained breathing apparatus.

- b. class HI biological safety cabinets or isolators with similar performance standards (e.g. flexible isolators, dry boxes, anaerobic chambers, glove boxes, or laminar flow hoods (closed with vertical flow)).

7. Aerosol inhalation chambers

Chambers designed for aerosol challenge testing with micro-organisms, viruses or toxins and having a capacity of 1 cubic metre or greater.

8. Spraying or fogging systems and components therefore, as follows:

- a. Complete spraying or fogging systems, specially designed or modified for fitting to aircraft, lighter than air vehicles or UAVs, capable of delivering, from a liquid suspension, an initial droplet "VMD" of less than 50 microns at a flow rate of greater than two litres per minute.
- b. Spray booms or arrays of aerosol generating units, specially designed or modified for fitting to aircraft, lighter than air vehicles or UAVs, capable of delivering, from a liquid suspension, an initial droplet "VMD" of less than 50 microns at a flow rate of greater than two litres per minute.
- c. Aerosol generating units specially designed for fitting to systems that fulfill all the criteria specified in paragraphs 8.a and 8.b.

Technical Notes

Aerosol generating units are devices specially designed or modified for fitting to aircraft such as nozzles, rotary drum atomisers and similar devices.

This entry does not control spraying or fogging systems and components as specified in paragraph 8. above that are demonstrated not to be capable of delivering biological agents in the form of infectious aerosols.

Pending definition of international standards, the following guidelines should be followed:

Droplet size for spray equipment or nozzles specially designed for use on aircraft or UAVs should be measured using either of the following methods:

- a. *Doppler laser method*
- b. *Forward laser diffraction method*

Items for inclusion in Awareness Raising Guidelines

Experts propose that the following items be included in awareness raising guidelines to industry:

1. Equipment for the micro-encapsulation of live micro-organisms and toxins in the range of 1-10 um particle size, specifically:
 - a) interfacial polycondensators;
 - b) phase separators,
2. Fermenters of less than 20 litre capacity with special emphasis on aggregate orders or designs for use in combined systems.
3. Conventional or turbulent air-flow clean-air rooms and self-contained fan-HEPA filter units that maybe used. for P3 or P4 (BL3, BL4, L3, L4) containment facilities.

II. Related Technology

The transfer of 'technology' for 'development' or 'production' of:

- AG- controlled biological agents; or
- AG- controlled dual-use biological equipment items.

Controls on 'technology' transfer do not apply to information 'in the public domain': or to 'basic scientific research' or the minimum necessary information for patent application.

The approval for export of any AG-controlled item of dual-use equipment also authorises the export to the same end-user of the minimum 'technology' required for the installation, operation, maintenance, or repair of that item.

Definition of Terms

'Basic scientific research'

Experimental or theoretical work undertaken principally to acquire new knowledge of the fundamental principles of phenomena or observable facts, not primarily directed towards a specific practical aim or objective.

'Development'

- 'Development' is related to all stages before production such as:
 - design;
 - design research,
 - design analysis,
 - design, concepts,
 - assembly of prototypes,
 - pilot production schemes,
 - design data,
 - process or transforming design data into a product, configuration design,
 - integration design, and
 - layouts.

'In the public domain'

'In the public domain', as it applies herein, means technology that has been made available without restrictions upon its further dissemination. (Copyright restrictions do not remove technology from being in the public domain.)

'Lighter than air vehicles'

Balloons and airships that rely on hot air or on lighter-than-air gases such as helium or hydrogen for their lift.

'Production'

- Production means all production phases such as: construction,
- production engineering,
- manufacture,
- integration,

assembly (mounting),
inspection,
testing, and
quality assurance.

‘Technical assistance’

May take forms, such as: instruction, skills, training, working knowledge, consulting services. ‘Technical assistance’ may involve transfer of ‘technical data’.

‘Technical data’

May take forms such as blueprints, plans, diagrams, models, formulae, tables, engineering designs and specifications, manuals and instructions written or recorded on other media or devices such as disk, tape, read-only memories.

‘Technology’

Specific information necessary for the ‘development’, ‘production’, or ‘use’ of a product. The information takes the form of ‘technical data’ or ‘technical assistance’.

‘UAVs’

Unmanned Aerial Vehicles.

‘Use’

Operation, installation, (including on-site installation), maintenance, (checking), repair, overhaul or refurbishing.

‘VMDs’

Volume Median Diameter (*note: for water-based systems, VMD equates to MMD – the Mass Median Diameter*).

LIST OF BIOLOGICAL AGENTS FOR EXPORT CONTROL

CORE LIST

Viruses

- V1. Chikungunya virus
- V2. Congo-Crimean haemorrhagic fever virus
- V3. Dengue fever virus
- V4. Eastern equine encephalitis virus
- V5. Ebola virus
- V6. Hantaan virus
- V7. Junin virus
- V8. Lassa fever virus
- V9. Lymphocytic choriomeningitis virus
- V10. Machupo virus
- V11. Marburg virus
- V12. Monkey pox virus
- V13. Rift Valley fever virus
- V14. Tick-borne encephalitis virus (Russian Spring-Summer encephalitis virus)
- V15. Variola virus

- V16. Venezuelan equine encephalitis virus
- V17. Western equine encephalitis virus
- V18. White pox
- V19. Yellow fever virus
- V20. Japanese encephalitis virus
- V21. Kyasanur Forest virus
- V22. Louping ill virus
- V23. Murray Valley encephalitis virus
- V24. Omsk haemorrhagic fever virus
- V25. Oropouche virus
- V26. Powassan virus
- V27. Rocio virus
- V28. St Louis encephalitis virus
- V29. Hendra virus (Equine morbillivirus)
- V30. South American haemorrhagic fever (Sabia, Flexal, Guanarito)
- V31. Pulmonary & renal syndrome-haemorrhagic fever viruses (Seoul, Dobrava, Puumala, Sin Nombre)
- V32. Nipah virus

Rickettsiae

- R1. Coxiella burnetii
- R2. Bartonella quintana (Rochalirnea quintana, Rickettsia quintana)
- R3. Rickettsia prowazeki
- R4. Rickettsia rickettsii

Bacteria

- B1. Bacillus anthracis
- B2. Brucella abortus
- B3. Brucella melitensis
- B4. Brucella suis
- B5. Chlamydia psittaci
- B6. Clostridium botulinum
- B7. Francisella tularensis
- B8. Burkholderia mallei (Pseudomonas mallei)
- B9. Burkholderia pseudomallei (Pseudomonas pseudomallei)
- B10. Salmonella typhi
- B1.1. Shigella dysenteriae
- B 12. Vibrio cholerae
- B13. Yersinia pestis
- B14. Clostridium perfringens, epsilon toxin producing types2
- B 15. Enterohaemorrhagic Escherichia coli, serotype 0157 and other verotoxin producing serotypes

Toxins as follow and subunits thereof:3

- T1. Botulinurn toxins4
- T2. Clostridium perfringens toxins
- T3. Conotoxin
- T4. Ricin
- T5. Saxitoxin
- T6. Shiga toxin
- T7. Staphylococcus aureus toxins

- T8. Tetrodotoxin
 T9. Verotoxin and shiga-like ribosome inactivating proteins
 T10. Microcystin (Cyanginosin)
 T11. Aflatoxins
 T12. Abrin
 T13. Cholera toxin
 T14. Diacetoxyscirpenol toxin
 T15. T-2 toxin
 T16. 11T-2 toxin
 T17. Modeccin toxin
 T18. Volkensin toxin
 T19. Viscum Album Lectin I (Viscumin)

Fungi

- F1. *Coccidioides immitis*
 F2. *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 Oonotoxins 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:

- G1 Genetic elements that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.
- G2 Genetic elements that contain nucleic acid sequences coding for any of the toxins in the list, or for their sub-units.
- G3 Genetically-modified organisms that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.
- G4 Genetically-modified organisms that contain nucleic acid sequences coding for any of the toxins in the list or for their sub-units.

Technical note:

Genetic elements include inter alia chromosomes, genomes, plasmids, transposons, and vectors whether genetically modified or unmodified.

Nucleic acid sequences associated with the pathogenicity of any of the microorganisms 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

WBI. Clostridium tetani*

WB2. Legionella pneumophila

WB3. 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.

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:

- WG1 Genetic elements that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.
- WG2 Genetic elements that contain nucleic acid sequences coding for any of the toxins in the list, or for their sub-units.
- WG3 Genetically-modified organisms that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.
- WG4 Genetically-modified organisms that contain nucleic acid sequences coding for any of the toxins in the list or for their sub-units.

Technical note:

Genetic elements include inter alia chromosomes, genomes, plasmids, transposons, and vectors whether genetically modified or unmodified.

Nucleic acid sequences associated with the pathogenicity of any of the microorganisms 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.

LIST OF PLANT PATHOGENS FOR EXPORT CONTROL

CORE LIST

Bacteria

- FBI. *Xanthomonas albilineans*
- PB2. *Xanthomonas campestris* pv. *citri*
- PB3. *Xanthomonas oryzae* pv. *oryzae* (*Pseudomonas campestris* pv. *oryzae*)
- PB4. *Clavibacter michiganensis* subsp. *sepedonicus* (*Corynebacterium michiganensis* subsp. *sepedonicum* or *Corynebacterium sepedonicum*)
- PBS. *Ralstonia solanacearum* races 2. and 3 (*Pseudomonas solanacearum* races 2 and 3 or *Burkholderia solanacearum* races 2 and 3)

Fungi

- FF1. *Colletotrichum coffeanum* var. *virulans* (*Colletotrichum kahawae*)
- PF2. *Cochliobolus miyabeanus* (*Helminthosporium oryzae*)

- PF3. *Microcyclus ulei* (syn. *Dothidella ulei*)
- PF4. *Puccinia graminis* (syn. *Puccinia graminis* f. sp. *tritici*)
- PF5. *Puccinia striiformis* (syn. *Puccinia. glumarinn*)
- PF6. *Pyricularia grisea* / *Pyricularia oryzae*

Viruses

- PV1. Potato Andean latent tymovirus
- PV2. Potato spindle tuber viroid

Genetic Elements and Genetically-modified Organisms:

- PG1 Genetic elements that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the Core List.
- PG2 Genetically-modified organisms that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the Core List.

Technical note: Genetic elements include inter alia chromosomes, genomes, plasmids, transposons, and vectors whether genetically modified or unmodified.

Nucleic acid sequences associated with the pathogenicity of any of the microorganisms 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.

Items for Inclusion in Awareness-raising Guidelines

Bacteria

- PWB1. *Xylella fastidiosa*

Fungi

- PWF1. *Deuterophoma tracheiphila* (syn. *Phoma tracheiphila*)
- PWF2. *Monilia rorei* (syn. *Moniliophthora rorei*)

Viruses

- PWV1. Banana bunchy top virus

Genetic Elements and Genetically-modified Organisms:

- PWG1 Genetic elements that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the Awareness-raising Guidelines.
- PWG2 Genetically-modified organisms that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the Awareness-raising Guidelines.

Technical note: Genetic elements include inter alia chromosomes, genomes, plasmids, transposons, and vectors whether genetically modified or unmodified.

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.

List of Animal Pathogens for Export Control Viruses

- AV1. African swine fever virus
- AV2. Avian influenza virus²
- AV3. Bluetongue virus
- AV4. Foot and mouth disease virus
- AV5. Goat pox virus
- AV6. Herpes virus (Aujeszky's disease)
- AV7. Hog cholera virus (synonym: swine fever virus)
- AV8. Lyssa virus
- AV9. Newcastle disease virus
- AV10. Peste des petits ruminants virus
- AV 11. Porcine enterovirus type 9 (synonym: swine vesicular disease virus)
- AV12. Rinderpest virus
- AV 13. Sheep pox virus
- AV14. Teschen disease virus
- AV15. Vesicular stomatitis virus
- AV16. Lumpy skin disease virus
- AV 17. African horse sickness virus

1. Except where the agent is in the form of a vaccine.
2. This includes only those Avian influenza viruses of high pathogenicity as defined in EC Directive 92/40/EC:
 - “Type A viruses with an IVPI (intravenous pathogenicity index) in 6 week old chickens of greater than 1.2: or
 - Type A viruses H5 or H7 subtype for which nucleotide sequencing has demonstrated multiple basic amino acids at the cleavage site of haemagglutinin”

Bacteria

AB3. Mycoplasma mycoides

Genetic Elements and Genetically-modified Organisms

AG1 Genetic elements that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list.

AG2 Genetically-modified organisms that contain nucleic acid sequences associated with the pathogenicity of any of the microorganisms in the list,

Technical note: Genetic elements include inter alia chromosomes, genomes, plasmids, transposons, and vectors whether genetically modified or unmodified.

Nucleic acid sequences associated with the pathogenicity of any of the microorganisms 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 to which it may be inserted or otherwise integrated, to cause serious harm to human, animal or plant health.
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