

Hygiene Protocols for the Prevention  
and Control of Diseases  
(Particularly Beak and Feather Disease)  
in Australian Birds

Transportation Protocol for Bodies and Tissues



**Australian Government**

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**Department of the Environment and Heritage**

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## Disclaimer

### Note

This document describes the *Transportation Protocol for Bodies and Tissues*. It has been developed with the involvement and cooperation of a broad range of stakeholders, but the making of this document does not necessarily indicate the commitment of individual stakeholders to undertaking any specific actions. The attainment of objectives and the provision of funds may be subject to budgetary and other constraints affecting the parties involved. Proposed actions may be subject to modification over the life of the document due to changes in knowledge.

# Transportation Protocol for Bodies and Tissues

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The World Health Organization has published the document “*Guidance on regulations for the Transport of Infectious Substances 2005*”, available from [here](#).

The International Air Transport Association (IATA) and the Civil Aviation Safety Authority (CASA) have adopted this document, and all air carriers are required to comply from January 2007. Many have already adopted the recommendations. You are advised to read this document. Shipments sent by air must adhere to the guidelines specified in the document, but in general the majority shipped by land in Australia must also comply.

## ***Packaging***

IATA packing instructions are available in the document:

[Dangerous Goods Regulations 2006 - 47th Edition:](#)

Any person who packs, or supervises an individual who packs, dangerous goods for transportation by air, is first required to undertake a dangerous goods training course approved by CASA. The training courses are offered by classroom tutorial or correspondence. The course is called: *Safe Transport of Infectious Substances and Diagnostic Specimens Training Course* and those who complete it satisfactorily receive a *Certificate of Currency* which is valid for two years.

<http://www.caaa.com.au/ISdetails.htm>

You may request the courier to pack the consignment for you. This course only applies to samples consigned by air.

The following advice for safe shipment and delivery of samples should always be followed:

- Always contact the laboratory before you send samples;
- The quality of results depends on the care and attention given to the collection of specimens;
- Ensure that you can get samples that need to be refrigerated to a laboratory within 12-24 hours of collection - do not collect samples on a Friday or Saturday;
- Keep the outside of sample AND shipping containers clean and uncontaminated. If the outside of a sample container is contaminated, clean and disinfect the outside with 2% Virkon S solution, allow contact for 10 minutes, and rinse thoroughly with water and allow to dry;
- IATA regulations do not allow handling of foam eskies, unless they are placed inside a cardboard box. If the esky is made of impact-resistant plastic, it does not have to be placed inside a cardboard box; and
- Ensure that sample containers will not leak by screwing the lid down firmly on the inner bottle. For formalin- or alcohol-fixed tissues, drain the fluid from the samples once they are fixed. You can use formalin- or alcohol-soaked gauze to keep fixed samples moist. Place them into a screw top container to ensure samples do not dry out, and then seal the container in a zip-lock<sup>®</sup> bag.

### *Fresh or frozen tissues*

Fresh or frozen tissues, such as avian bodies, blood, serum, swabs and tissues may contain infectious agents and should be shipped within a three-layered package system as supplied by the CSIRO Animal Health Laboratory and laboratories such as IDEXX and Gribbles.

A biological product or diagnostic specimen with a low probability of containing pathogens in Risk Groups 2 or 3 (see Australian/New Zealand Standard, Safety in laboratories, Part 3, Microbiology AS/NZS 2243.3) may be transported in such containers. The sender, not the transport company, is responsible for the shipment until the package reaches the consignee

The containers (“lab mailers”) from Gribbles and IDEXX Laboratories are made up as follows:

- A. An inner plastic cylinder containing absorbent material (and the specimen into a zip- lock<sup>®</sup> biohazard bag).
- B. A screw lid to seal A.
- C. An inner thick cardboard cylinder in which to place A.
- D. This then fits into E.
- E. An inner lab mailer 80mm cylinder with two red plastic lids to fit F.
- F. An outer lab mailer 100mm cylinder with two red lids, with both lids taped down.

Ensure that all lids are on straight and tight. Release residual vacuum or air pressure in the vacutainers by sticking a needle through the bung.

Additionally, Gribbles and IDEXX provide plastic 60 mL jars, laboratory mailers and consignment notes free of charge. Larger plastic jars (250 and 500mL 1L) may be purchased from them. Consignment notes are pre-printed on Diagnostic Specimen labels and cover all consignments up to 3 kg ( for toll priority). Specimens that do not fit into the lab mailer, but do not exceed 3 kg and 0.018m<sup>3</sup>, should be packed into a ziplock bag, placed into a secondary leak-proof container surrounded by absorbent material (eg. 6-pack esky), and placed into a cardboard box, that should be securely taped and the consignment note affixed to the outside. Consignments exceeding 3 kg and 0.018m<sup>3</sup> attract an extra charge by the laboratory.

Fresh tissues must be shipped as soon as possible, however note that overnight courier is significantly cheaper than same day.

The shipping container (which includes the specimen advice form) should contain the following information:

- Bird species, age, sex, whether captive or wild bird, and if wild, location found.
- Short history and clinical signs.
- Necropsy findings (if necropsy performed).
- Disease suspected with tests requested.
- If a disease has not been diagnosed, contact the laboratory and ask what specimens should be submitted. If this is not possible, then submit a broad range of tissues and specimens,

Whirl-pack<sup>®</sup> bags are not leak-proof

## ***Packaging Histopathology Tissues***

Small pieces of fixed tissues are all that is usually required.

- Collect the sample into 10% neutral buffered formalin in a screw top plastic jar. Do not use glass jars as these may break and spill formalin.
- The recommended size is 10mm in thickness. Formalin will penetrate and fix tissue of this size in 24 hours.
- Liquid formalin is regarded as dangerous goods/biological products (IATA regulations).
- Once the tissue is fixed, decant the formalin and add tissues or cotton wool to mop up any liquid formalin. This reduces the chance of formalin spill completely.
- Place the plastic jar containing the fixed tissue with gauze wadding into a zip-lock biohazard bag with the gross necropsy report inserted into the side panel of the bag.
- Once the formalin is drained from the samples, they are not regarded as dangerous goods/biological products with respect to IATA regulations.
- If 50 mL or more of either formalin or 70% alcohol is being shipped, then the consignment is regarded as dangerous goods.
- Samples consigned with alcohol greater than 70% concentration are regarded as dangerous goods.
- Do not use containers with metal lids as these react with formalin and may affect the quality of specimens.