

# Bringing Samples, Chemicals, or Equipment Onsite



**You must include all samples, chemicals (including gases) and equipment you will bring with you or use at the Synchrotron in your EA for approval.** If you wish to send samples, chemicals or equipment to the Synchrotron *in advance* of your beamtime, including for mail-in or remote access, you must submit the [EA form](#) and wait for it to be fully approved **before** shipping.

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## 1. MX Dewar shipping

If shipping dry shippers to the Synchrotron prior to MX beamtime, please click [here](#) for information.

## 2. Shipping samples, chemicals, or equipment in advance

If shipping samples to us prior to beamtime, including for mail-in or remote access, all items must be approved by Safety prior to shipping; it is therefore recommended that you submit your EA at least 6 weeks before scheduled beamtime where possible. Please refer to following procedure:

<b>1</b>	<p><b>Contact the relevant Beamline Scientists to confirm your experiment and list the samples and/or equipment that you will be shipping to the Australian Synchrotron.</b></p> <p><b>Please contact our <a href="#">Lab Staff</a> if you wish to ship chemicals directly to the Synchrotron from a supplier.</b></p>
<b>2</b>	Fill in and submit the <a href="#">Experiment Authorisation (EA) form</a> .
<b>3</b>	<b>Wait for EA approval before ordering or sending any items.</b>
<b>4</b>	<p>Package and label your samples in accordance with your carrier's requirements (including Australia Post where applicable) and any other regulatory requirements. Consult the transport guidelines below for more information, especially regarding biological samples or hazardous materials.</p> <p>For mail-in or remote samples please pay particular attention to the full and correct labelling of each sample.</p>
<b>5</b>	Ensure you have included your name, your approved Australian Synchrotron EA form and appropriate Safety Data Sheets (SDS).
<b>6</b>	If your samples require particular storage conditions upon arrival e.g. refrigeration, please ensure that the package is clearly marked ' <b>Urgent</b> ' and 'Requires [refrigeration, freezer...] on arrival'. Follow instructions outlined in section 3. "Transport TO the Australian Synchrotron".
<b>7</b>	<p>Address the outer package as follows:</p> <p><b>STORES</b>  <b>Attention: (relevant beamline) or (Lab staff)</b>  <b>Experiment Proposal Number (EPN)</b>  <b>ANSTO - Australian Synchrotron</b>  <b>800 Blackburn Rd</b>  <b>Clayton</b>  <b>VIC 3168</b>  <b>Australia</b></p>
<b>8</b>	Email the relevant beamline team, <a href="#">Safety, Stores and the Lab Staff</a> when you have shipped the samples. Please include in this email all details of the samples you are sending including number of samples, any associated hazards, and any specific sample storage requirements.

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## 3. Transport TO the Australian Synchrotron

There are International and Australian regulations that cover the import, export and transport of goods, especially chemicals and biological materials. Please review the appropriate sections for more information.

It is advisable to begin organising sample transport as early as possible to account for any special conditions you may be required to follow. For importing/exporting information for Australia please review the appropriate section below and contact the [Australian Border Force](#) for further information.

Before transporting samples or chemicals, either by courier, mail or on your person, it is strongly recommended that you contact your carrier and the relevant authorities in the country you are shipping or travelling from regarding regulations for exporting (and importing, if you are returning to that country with the samples). If the carrier/airline, courier or Australian authorities require a statement regarding the intended use of the material from the Australian Synchrotron, please contact the [User Office](#).

If your samples require refrigeration, freezer (-18°C), ultralow temperature (-80°C) or liquid nitrogen storage on arrival, please ensure the package is clearly marked 'Urgent' and 'Requires (refrigeration, freezer) on arrival'. Please ensure packages contain enough cooling material to account for shipping delays and weekends; the Stores receiving department at the Australian Synchrotron operates Monday to Friday, 8:30 am to 4:00 pm.

Note that staff will not routinely unpack samples unless they have been sent for mail-in or remote access experiments. Ensure that you follow the dangerous goods guidelines including packing incompatible materials separately if required. If shipping multiple sample types that require different storage conditions, please send in separate packages. Alternatively, you can clearly mark on the outside packaging that the main package contains samples of various storage requirements and Stores will unpack the inner packages appropriately. Ensure each sample type is clearly labelled with storage requirements and any required hazard symbols and include this information in your email to site (see section 2, step 8)

### Covering Letter

A covering letter on an **official organisational letterhead** of the sender is **essential** for international shipments and is recommended for interstate shipments of research samples. The cover letter should be signed by a group/research leader and should include the following information:

Why the samples are being imported (for research purposes at the Australian Synchrotron).

For samples requiring the use of our import permit you must also provide the following details on a Manufacturer/Supplier Declaration:

- A complete list of the samples and a description of each one, the number of samples of each type and total number of samples. The list should exactly match the labelling on each sample and the number of samples. (If each sample is only labelled with a code, due to size restrictions, a full description of what each code means is required).
- Which section of the permit each commodity is being imported under.

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- Any statements that are required under the conditions of the section of the permit you are using for the import.

The [Lab Staff](#) can provide you with a template that will assist in completing the Manufacturer/Supplier declaration and a cover letter to allow you to utilise our import permit.

### Samples for mail-in and remote access experiments

ANSTO will cover all costs associated with shipping samples to the Synchrotron where it replaces User travel to the site (interstate and international Users). You should follow the usual travel funding process to reclaim shipping costs by submitting your courier invoice to the User Office.

Shipping costs will cover User samples being shipped to site, as well as specialised sample holders being sent to Users and back again to site, to assist with sample preparation for scheduled beamtime. Sample holders are considered property of the Australian Synchrotron and must be returned to ANSTO AS.

For local users wishing to drop off samples at the Synchrotron prior to scheduled mail-in or remote access experiments, please deliver them to Stores between the hours of 9:00 am and 3:00 pm, Monday to Friday only.

#### 4. Transport FROM the Australian Synchrotron including sample waste

It is Synchrotron policy that Users remove all samples at the conclusion of an experiment. All waste material generated as part of an experiment is also expected to be removed for disposal at your home institute. It is understood that in some cases this is not practical and by prior agreement with your Beamline Scientists or the Lab Staff, waste may be left at the Australian Synchrotron for disposal.

### Samples for mail-in and remote access experiments

Please note that the Australian Synchrotron will not arrange packing and transport for shipping items back to a home institute at the conclusion of an experiment. However if sample return is required you may organise this yourself and have items collected by your Courier from the Synchrotron, or please speak to your Beamline Scientist to discuss other options. All sample return is at the expense of the User. **Please note:** special packaging requirements are in place for Dangerous Goods – please refer to the Transporting Dangerous Goods section below.

#### 5. Transporting Biological Samples

### Packaging and Labelling of Biological Samples

Biological samples are required to be packaged, labelled and transported appropriately. Guidelines on packaging and labelling for biological samples can be found [here](#). Please also refer to the information below on Importing Biological Samples from overseas or interstate and information on GMOs.

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## Importing Biological Samples from Overseas

The import of biological materials into Australia is regulated by the Australian Department of Agriculture, Water and the Environment (DAWE). Biological commodities may be subject to specific biosecurity conditions outlined in the [Biosecurity Import Conditions System \(BICON\)](#) section of the DAWE website. Certain biological commodities may require a Biosecurity Import Permit (AQIS permit) – examples are food samples, proteins, microorganisms, antibodies and animal tissues.

If you are using a Biosecurity Import Permit to import samples you must read the permit carefully and comply with all conditions of the permit listed in the section/s relevant to your commodities. You must also comply with all requirements, including documentary requirements, described under 'Important information about this permit and the import of goods'.

The Australian Synchrotron holds Biosecurity Import Permits that cover a range of biological materials. Biological material not included on our permits may require a new import permit application before samples can be sent and this can take several months to organise. If you wish to utilise our Biosecurity permit to import your samples you will require a cover letter from us allowing you to use our permit, please contact the [User Office](#) or [Lab Staff](#) to supply you with this letter. You will also require a cover letter from your home institution as described under [Covering Letter](#) above.

**Please note:** the lack of a Biosecurity Import Permit, insufficient or incorrect sample information (on an official letterhead) or non-compliance with the Import Permit conditions, may result in samples being stopped at Australian Customs and destroyed or returned to the sender (at sender's cost).

Some biological commodities are only permitted entry into Australia if they are transported directly to an approved site for Post Entry Quarantine (PEQ) or are treated upon entry. Examples of approved treatments include heat treatment or gamma irradiation – fees are payable to DAWE for these treatments. The Australian Synchrotron is not currently an approved site for Post Entry Quarantine so some commodities from overseas such as soil samples and live plant tissues may not be permitted entry. Consult the [BICON](#) website for further information.

## Importing Biological Samples from Interstate

In addition to having controls on biological materials that can enter from overseas, Australia has rules and regulations about the movement of biological materials between states and within states. Information on the Australian Interstate Quarantine Rules for interstate transport can be found [here](#).

## Genetically Modified Organisms (GMOs)

The transport of genetically modified organisms is regulated by the Office of the Gene Technology Regulator (OGTR). Guidelines for the transport of GMOs can be found [here](#). Please also refer to the information on importing biological samples from overseas or interstate as appropriate.

## CITES - Convention on International Trade in Endangered Species of Wild Fauna and Flora

Australia is one of 179 countries that are party to the International Convention on International Trade in Endangered Species of Wild Fauna and Flora. There are over 35,000 species (over 5,000 animals and 30,000 plants) listed under CITES. Even if the Australian Synchrotron has a permit for the class of commodity you wish to import you should also check that the species is not listed on CITES as

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importation may be restricted. Please consult the [Department of Agriculture, Water and the Environment - CITES](#) webpage for more information.

## 6. Transporting Non-biological Samples including Chemicals

In all cases you should first obtain an Australian Safety Data Sheet (SDS), if available, for all samples and reagents you are transporting. The transport section of the SDS, generally section 14, will detail if the substance is regulated as a dangerous good for transport. SDSs with no transport information are not acceptable, you will need to obtain one from the manufacturer or supplier that has transport information.

If the substance is a dangerous good, the transport section of the SDS will contain information relevant to the transport of the substance.

If a substance is not classified as a dangerous good for transport it will generally have a statement: 'Not regulated for the transport of dangerous goods'.

**SDSs for all chemicals and samples should be included in your package for transport.**

## 7. Transporting Dangerous Goods

If your sample is regulated for transport as a dangerous good, as listed by the transport section of the SDS, you should follow the guidelines dependant on the mode of transport you wish to utilise.

Transport by air is regulated internationally by the IATA (International Air Transport Association) and in Australia by the Civil Aviation Safety Authority (CASA) - information can be found [here](#).

Transport by sea is regulated internationally by the International Maritime Dangerous Goods Code and in Australia by the Australian Maritime Safety Authority (AMSA) - information can be found [here](#).

The Australian States and Territories have responsibility for the road and rail transport of dangerous goods in Australia – information can be found [here](#).

In most cases, to ship dangerous goods by any mode you will need a certified shipper of dangerous goods to pack the items and prepare the Shipper's Declaration documents for shipping. **Please note:** Dry Ice used as a refrigerant (with certain limitations) **does not** require a Shipper's Declaration or packing by a certified shipper, unless the package contains other dangerous goods. Please review the section on Dry Ice below for the requirements.

Your organisation may have someone authorised as a certified shipper of dangerous goods. A certified shipper will have completed and passed a three-day course on the shipment of dangerous goods by air. This certification, as well as the laws regarding air transport of dangerous goods, is international, so you will need a certified shipper no matter what country you are in or what country you are sending to.



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**Please note:** Certified shippers are required to personally pack all shipments they complete the documentation for. Do not expect them to ship something that you have packaged yourself. If you do not have access to a certified shipper at your organisation there are several commercial companies that provide dangerous goods shipping services that can organise all aspects of the transport of dangerous goods for you. Some examples are listed in the links section at the bottom of this information sheet.

## Dry Ice (solid carbon dioxide)

Dry ice, when transported by any mode (e.g. air, road, rail), must be in packaging designed and constructed to permit the release of carbon dioxide gas and to prevent build-up of pressure that could rupture the packaging. When dry ice is shipped by air, IATA Packing Instruction 904 must be followed.

The shipper and operator(s) must ensure that the following ventilation safety procedures are followed:

- a) The dry ice must be placed outside the secondary packaging, and interior supports must be provided to keep the secondary packaging in the original position after the dry ice has dissipated.
- b) The outer packaging must permit release of carbon dioxide gas that could rupture the packaging.
- c) The outer packaging must be marked and labelled with:
  - proper shipping name (DRY ICE) or (CARBON DIOXIDE SOLID)
  - UN 1845
  - Hazard label - Class 9 (miscellaneous)
  - Net weight of dry ice (in kilograms) in each package

A shipper's declaration for dry ice is only required when the dry ice is used as a refrigerant for other dangerous goods that require a shipper's declaration. When a shipper's declaration is not required, all information at c) above **must** instead be listed in the 'Nature and Quantity of Goods' box on the waybill or consignment note.

## Other Chemicals/Samples Requiring Permits

Narcotics, psychotropic substances, drug precursor chemicals and various other substances are controlled under the Australian Customs (Prohibited Imports) Regulations 1956 and the Customs (Prohibited Exports) Regulations 1958. A number of these products require permission to import or export and others may be banned totally.

There are also strict rules concerning certain medicines and medical devices being brought into Australia, with some medicines requiring permission from the relevant Australian Government agency prior to entering the country. Information can be found on [The Office of Drug Control](#) website.

Some chemicals/drugs are restricted for use within Australia and the regulations may vary from state to state. You may require a permit before you can use certain chemicals/samples at the Synchrotron e.g. benzene, certain Scheduled drugs or radioactive samples. Contact [Safety](#) or the [Lab Staff](#) for further information.

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## 8. Bringing Gases onsite

The Synchrotron provides cylinders of common gases for use at the beamlines and in the labs. The gases we provide are high purity grades of nitrogen, argon, helium, carbon dioxide, oxygen and compressed air. If you require a different gas or an ultra-high purity grade you may be required to organise the supply of this gas yourself. Please contact the beamline scientists or the [Lab Staff](#) to discuss your requirements well in advance of your beamtime. Please also check with your beamline Scientist or Lab Staff if you require a specific regulator for the gases.

If you are organising the delivery of a gas cylinder to the Synchrotron please ensure that the gas is listed on your EA and that your EA has been approved **prior** to booking the delivery with your supplier. You will also be responsible for arranging the collection of the gas cylinder to go back to the supplier after your beamtime and for any costs involved in the supply and collection of the cylinder.

## 9. Transport within Australia by Post

If you are sending samples that are dangerous goods within Australia by Australia Post you will need to consult the Australia Post [Dangerous and prohibited items](#) website. Please note that Australia Post interstate mail services within Australia are generally by air transport.

## 10. Transporting Non-dangerous Goods

These substances may be transported by air without the conditions and documentation required for dangerous goods. However, the following points should be followed:

Contact the courier/postal service that you intend to use. Different companies have different requirements for the transport of chemicals, even if they are not classified as dangerous goods.

Packaging - seal the sample in a leak-proof container labelled appropriately. Seal this container in a plastic bag (if the sample is a liquid, wrap the container in enough absorbent material to absorb the full volume before sealing). Place in a box with cushioning material. Label the box as required dependent on the contents. Provide any SDSs with the package and a statement that the goods are non-hazardous and their intended use.

### Carrying in your Checked or Carry-on Baggage

Contact the airline you are travelling on as soon as possible (or before you book) to discuss the transport of the samples. They will likely require copies of the SDSs for the samples and possibly a statement that confirms the non-hazardous nature of the samples and their intended use. Each airline will have their own policies on the transport of chemicals.

Package samples as above.



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## 11. Further Information

For more information regarding sample shipping please contact the [Lab Staff](#).

## 12. Useful Links

Australian Border Force - [How to Import](#)

Australian Border Force - [Can you bring it in?](#)

Business.gov.au - [Products and services - importing](#)

Department of Agriculture, Water and the Environment - [Biosecurity Import Conditions System \(BICON\)](#)

Department of Agriculture, Water and the Environment - [CITES](#)

Department of Health - [Requirements for the Packaging and Transport of Pathology Specimens and Associated Materials](#)

Australia Post - [Dangerous and prohibited items](#)

Australian Maritime Safety Authority (AMSA) - [Cargoes and Dangerous Goods](#)

Civil Aviation Safety Authority - [Dangerous goods](#)

The Office of Drug Control - [Importers, Exporters and Travelers](#)

### Commercial Shippers of Dangerous Goods

(Listed shippers are examples only and do not imply a recommendation)

DG Air Freight - [www.dgair.com.au](http://www.dgair.com.au)

Toll - [www.tollgroup.com/dangerous-goods-freight](http://www.tollgroup.com/dangerous-goods-freight)

DGI - [www.dgiglobal.com](http://www.dgiglobal.com)