

Biosafety: a step-by-step guide



With this directory, you can check what the minimum safety requirements and statutory requirements for working with biological materials are, and what to do if you do not meet these requirements yet. If you have any questions or doubts (no matter how small), always contact the [Biosafety Desk](#). We are here to assist you.

Incidents and Accidents

Have you been exposed to biological agents or have biological agents been released outside the containment area? Immediately contact the biosafety officer (BSO) Marjanne Markerink-van Ittersum [06 467 055 52] or Kirti Banwarie [06 432 149 57].

Abbreviations used

DBE/ABV	department biosafety expert
BGGO	Bureau for Genetically Modified Organisms
BSO	biosafety officer
GMO	genetically modified organisms
RL/OL	research leader

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What biological materials are you working with or you intend to work with?

Check which situation applies to you and continue with the question you are referred to. If multiple situations apply, continue with the questions you are referred to.

- Biological agents (BA).** Wild type or genetically modified (micro)organisms (GMOs), cell cultures and human endoparasites that can cause an infection, allergic reaction or toxicity. The term "micro-organism" also refers to a microbiological entity, cellular or non-cellular, capable of replication or of transferring genetic material.

Does this situation apply to you?

[For wild type \(micro\)organisms → continue with question 2A](#)

[For GMOs → continue with question 2B](#)

- Genetic resources.** Wild plant species, animals, microorganisms or (rare) animal materials that you want to import or exchange may fall under the Nagoya Protocol (for the preservation of biodiversity). Does this situation possibly apply to you?

[→ Use the roadmap of question 3](#)

- High- Risk plants and plant media.** High-Risk plants, soil and growth media from outside the EU or plant material from within the EU that are not allowed to grow in the NL.

Does this situation apply to you?

[→ Go to question 4 to check whether the phytosanitary regulations apply to you](#)

- Animal by-products.** Products of animal origin that are not intended for human consumption. This also includes material from lab animals, oocytes, embryos and sperm, provided these materials are not used for breeding purposes.

Does this situation apply to you?

[→ Go to question 5](#)

If you have any doubts, [contact us](#)

2A

Do you meet *all* of the following criteria for working with wild-type microorganisms?

[Yes? → Go to question 6](#)

[No? → Contact us](#)

Checklist safety criteria for working with wild-type microorganisms

If you answer any of these questions with "no," always contact the [Biosafety Desk](#). We can assist you.

- Did you register the microorganism in [Lab Servant](#)? If not, contact us.
- Do you know what hazard group the microorganism falls into? If not, contact us.
- Do you want to work with a microorganism that falls into a hazard group >2? Contact us and request explicit permission from the BSO.
- Are you qualified to work in a microbiological lab? You must always have the research leader (RL) or department biosafety expert (DBE) fill out an [authorisation form](#).
- Does your lab meet the [containment requirements](#)? Contact the [Biosafety Desk](#) if that is not the case or if you are not sure.
- Are you working in a new lab? Have the BSO inspect and sign off on the lab before using it.

2B

Do you meet *all* of the following criteria for working with GMOs?

[Yes? → Go to question 6](#)

[No? → Contact us](#)

Checklist safety criteria working with GMOs

If you answer any of these questions with "no", always contact the [Biosafety Desk](#). They can assist you.

- Did you register the GMO in [LabServant](#)? If not, contact us.
- Did you conduct a risk analysis for the GMO in [LabServant](#)? If not, contact us.
- If the risk analysis shows that containment level II or higher is required, the Bureau for Genetically Modified Organisms must be notified. Contact the BSO via the [Biosafety Desk](#).
- If the risk analysis does not produce a hit or reference to a notification number, contact the BSO.
- Are you qualified to work in a microbiological lab? Have the research leader (RL) or department biosafety expert (DBE) fill out the [authorisation form](#).
- The lab meets the containment requirements needed for your work with GMOs. (ML-I to ML-II, D-I to DM-II or a Plant Cell). If you do not have access to a suitable lab, contact the [Biosafety Desk](#)

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What you need to know when importing or exchanging genetic resources

When importing or exchanging genetic resources:

Since 2014, the exchange and use of genetic resources - i.e. wild plant species, animals and microorganisms - is subject to international regulations. For example, if the material transported to VU Amsterdam (phytosanitary regulations) has signed the Nagoya Protocol, various obligations usually apply. Remember that the country of origin may differ from the country from which you are importing the material. You are obligated to look into the origin of the materials you want to work with. Go through the [the Nagoya Protocol roadmap](#) to determine what you have to do.

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What to do when importing plants and/or plant material

When importing and working with plant material from outside the EU, you are sometimes met with import bans. If no such ban is in place, you will usually need a plant passport before you can have the material transported to VU Amsterdam (phytosanitary regulations).

- Check whether your material is registered on the [sanctioned list](#). If so, contact the BSO via the [Biosafety Desk](#).
- Check whether organisms are classified as [Q-organisms](#) (quarantine organisms). EU member states are required to prevent the introduction and spread of these harmful organisms. If this is the case for you, contact the BSO via the [Biosafety Desk](#).
- If import is allowed, check whether you require a [plant passport](#).

If not, [continue to question 6](#).

If so, check whether you meet all of the following criteria:

- Are you authorised to work with the material? If not, [contact the BSO](#).
- Do you have a transport document (LoA) to have the material transported to VU Amsterdam? If not, [contact the BSO](#).
- Does your lab meet the [containment requirements](#) from the requirements table? If not, [contact the BSO](#).

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What you need to know when importing or working with animal by-products

Safety requirements for animal by-products

The acquisition, transport and use of animal by-products is subject to certain guidelines: the [BVFP guideline](#). This guideline applies to dead animals or animal parts, products of animal origin or products that were acquired from animals and which are not intended for human consumption. It also applies to oocytes, embryos and sperm, unless these materials are used for breeding purposes.

VU Amsterdam has an exemption (permission number 35850) for the import of animal products or derived products that are used for research and diagnosis.

- For transport within the Netherlands. Fill out the template [ABP Trade Document](#) and send the document to the transporter. Save a copy of the document for inspection during audits by the Netherlands Food and Consumer Product Safety Authority (NVWA)
- For transport within the EU. Fill out the template [EU Commercial Document](#) and send the document to the transporter. Save a copy of the document for inspection during audits by the Netherlands Food and Consumer Product Safety Authority (NVWA)
- Is your registration of animal by-products in order? Be sure to keep the [registration](#) up to date.

6

Are you transporting, importing or exporting biological materials or is a third party doing so on your behalf?

[Yes? → Go through the checklist for the transport of biological materials](#)

[No? → Go to question 7](#)

Checklist for the transport of biological materials

- Is your packaging adequate? Has the exterior of the primary container been decontaminated?
- Does your transporter have the right accreditation?
- Are you **importing** hazardous organisms, plants, soil and growth media that are subject to the phytosanitary regulations (see also question 4) or is a third party doing so on your behalf? Make sure to get a transport document. Contact the BSO via the [Biosafety Desk](#).
- Are you transporting animal by-products or is a third party doing so on your behalf? Make sure you have the right documentation, see also question 5.

If you have any questions or need assistance, contact the [Biosafety Desk](#).

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Check whether CITES applies to you

CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora)

CITES is an international agreement designed to protect plants and animals by regulating "trade activities" involving these species. If you want to work with or transport endangered animal or plant species or parts or products thereof, [contact the BSO](#).

Good luck with your research!