ETH zürich

Information Sheet

Notification of biosafety relevant activities

If you work with genetically modified organisms (GMO), certain invasive alien organisms and/or pathogens (including work with samples from human origin like blood or human tissues), you must notify these activities to the Federal authorities of these activities (Ordinance of the contained use of organisms (ESV), cf. table 1). **It is forbidden to work at the ETH Zurich with GMO, invasive alien organisms or pathogens without prior notification**.

Table 1: Overview

		GMO	PO	AOCC	diagnostics
Class 1	first activity or modification	notification	No notification required		
Class 2	first activity or modification	notification			
Class 3 and 4	first activity or modification of content	authorization			
	administrative modification	notification			
All classes	Omission of safety / security measures	authorization			

GMO = genetically modified organisms
PO = pathogenic organisms
AOCC = alien organisms subject to compulsory containment

Step-by-step guideline on how you should proceed

1.) identify the biosafety level (BSL) of your activities:
The microorganisms are classified into 4 different classes (1 “low risk” to 4 “very high risk”), and in most cases the class corresponds directly to the biosafety level (BSL) of your activity, e.g. work with class 1 organisms → in general BSL 1 lab / activity. Working with samples of human origin (blood, tissues) is usually classified as BSL2.

Among others, the following sources display information on how to classify organisms:

- Federal Office for the Environment (FOEN)
  https://www.bafu.admin.ch/bafu/en/home/topics/biotechnology/publications-studies/publications/classification-of-organisms.html
- American Biological Safety Association
  https://my.absa.org/tiki-index.php?page=Riskgroups

2.) send the notification form to the authorities:

- **BSL1 and BSL 2**: enroll the respective activity directly online in the ECOGEN database: https://www.ecogen.admin.ch/ecogen/Forms/LogOn/LogOnPage.aspx. In order to create a new ECOGEN unit of organization (meaning that your research group has not yet registered), please contact cabs@ethz.ch, and send the exact name of your research gruop group as well as the responsible persons’ names and ETH contact details (cf. step 3). Thereupon, you will gain access to the database and you will be able to notify your planned activities. On request, ETH’s SSHE unit is able to provide you with a brief instruction on how to use the database. If problems occur while creating notifications, please directly contact the the Federal Coordination Centre for Biotechnology: contact.biotech@bafu.admin.ch
- **BSL3 and BSL 4**: For these activities, an authorization of the federal authorities is necessary. Please contact cabs@ethz.ch in advance.
- In case of working with samples of human origin, please contact aslo the ethics committee (https://www.ethz.ch/services/de/organisation/gremien-gruppen-kommissionen/ethikkommission.html).

3.) Responsible persons

- **For each project a biosafety responsible (BSO) including a deputy, and a project leader have to be defined.** Send us the names and e-mail addresses of the BSO and his / her deputy. It is strongly recommended that at least one of these 2 people is able to communicate in German.
- No special training / official formation is required to become a BSO; but BSOs should attend regular trainings. BSO and deputies are added to an ETH internal mailing list (for seminar announcements, biosafety news, etc.).
- ETH offers 1-2 BSO in-house training sessions / seminars / workshops per year (in English and German). There are also courses available at the “curriculum biosafety, which give a good overview of the legal regulations and practical advice for working under BSL conditions (http://www.curriculum-biosafety.ch).
- The Project Leader is responsible for the instruction and training of all people working in the biosafety labs.

4.) create a biosafety concept for your group (your institute):

- According to the ESV, it is mandatory that each group has an own, specific biosafety concept.
- Templates for specific biosafety concepts (both in English and in German) are available on request. The general ETH biosafety concept can be downloaded from the SSHE homepage. (https://www.ethz.ch/services/de/service/sicherheit-gesundheit-umwelt/dokumente.html#Biosicherheit).

5.) prepare a "spill kit":

- Create a box containing all the material that can be useful in case of a spill. Such material may include personal protective equipment (e.g. lab coats that are used once only, coating material for shoes, gloves, safety glasses, FFP3 mask), disinfectant, information board, tissues or other material for soaking up spilled liquids, tweezers, biohazard bags
- Train the lab staff how to proceed in case of a spill.

6.) label your lab(s):

- BSL1 labs: no biohazard signs allowed (not even on the biosafety cabinets). Bins for contaminated waste should have a lid and should be clearly differentiated from "normal" waste (→ avoid confusion for cleaning staff).
- BSL2 labs: door labels (biohazard warning sign, restricted access sign, names of authorized people in a list), label biohazard waste bins with the biohazard sign, bins should have a lid. Safety labeling can be obtained via stickers@ethz.ch .

7.) If steps 1 – 6 are successfully processed you are allowed to start working under the following requirements

- For BSL1 and 2: Immediately after points 1-6 have been completed.
- The requirements for working under BSL conditions (infrastructure, construction, working procedures) can be found on a checklist, which is available on the SSHE homepage: https://www.ethz.ch/services/de/service/sicherheit-gesundheit-umwelt/dokumente.html#Biosicherheit

Please note that labcoats are mandatory even in BSL1 labs!

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