



AARHUS
UNIVERSITY

Safety _ Zoophysiology

Guidance on safety
for new employees and students



Revised november, 2023

Tobias Wang
Hans Malte
Per Guldhammer Henriksen
Heidi Jensen
Elin Ellebæk Petersen

A A R H U S U N I V E R S I T E T

Department of Biology _ Zoophysiology



CONTENTS:	Page
Animal stables and animal studies	3
<u>Safety</u>	
Location of safety equipment	4
Alarm/ Alarm system	4
Work related accidents and "close calls"	4
Teaching laboratory (labs)	4
Good laboratory conduct	4
Liquid chemical spills	5
Chemical room (building 1131 – room 123)	5
Using safety gloves	5
Isotopes	5
Using glassware	6
Glassware disposal (Household glass/ Laboratory glass)	6
Waste management (chemicals)	6
Hazardous waste	6
Solutions / Mixtures	6

ANIMAL STABLES AND ANIMAL STUDIES

Much of the section's research is based on animal studies, and the animals are housed in the basement of building 1131, where we have a number of excellent, newly renovated rooms. Animal studies and housing of the animals are subject to special legislation and require permits from the Danish Veterinary and Food Administration. Studies may not be carried out without these permits. Furthermore, students and guests may only carry out the studies if they have a permit and if they have completed and passed a FELASA B course. These courses are offered by the section of Zoophysiology approximately once a year. Contact Heidi or Tobias for information about the rules and FELASA courses.

Only Heidi J., Claus V., Rasmus B. and Per G.H. and animal keeper apprentices may care for the animals in the stables. The stables are inspected regularly by a veterinarian. Heidi J. and Tobias W. have overall responsibility for taking care of the animals, please contact them if you have problems or needs.

Become acquainted with the rules for stabling the animals that you work with.

Be aware that permits are also required for collection of animals from the wild, and that specific regulations apply for transporting and importing animals.

It is not permitted to bring guests to the animal facilities in the basement unless permission has been granted by Heidi or Tobias. We wish to maintain an open policy where the public gets honest and qualified answers as to which studies are being carried out, and for this reason we arrange visits for school groups, nurseries etc.

SAFETY:**Location of safety equipment:**

	1130 117	1131 123	1131 129	1131 133	1131 211	1131 215	1131 217	1131 221	1131 225	1131 229	1131 333
	JO	Kemi	MB,AF	AF/TW	HM	HM	TW	TW	MB,CD	AF	PTM
Eye wash bottles		X		X							
Eye wash shower	X	-	X	X				x	x	X	
First aid kit	x	X						X		x	x
Fire fighting equipment	Blanket	Blanket	Blanket			Blanket				Blanket	blanket
Emergency shower	X	-	x	X	-	-	-			X	

Alarm / Alarm system:

For emergency calls using internal phones, dial 112.

If you need emergency medical attention, dial 70 11 31 31.

(Aarhus universitetshospital, Skejby, Palle Juul-Jensens Boulevard 161-Indgang J3, 8200 Aarhus N)

In case of poisoning, a special hotline at Bispebjerg Hospital, the "Poison line", can be contacted around the clock, for advice and guidance in emergency situations. Read more about this at:

<http://www.giftlinjen.dk/>

Further information about first aid etc. can be found at:

<https://www.bispebjerghospital.dk/giftlinjen/alt-om-gift/foerstehjaelp/Sider/default.aspx>

An emergency response plan that should be read before starting to work is located on each floor.

Defibrillator: An overview is available at www.hjertestarter.dk. The closest defibrillator is located at the entrance of building 1131/1130 (next to the elevator) on the 1st and 3rd floors and in the lobby on the 2nd floor of building 1135.

Work related accidents and "close calls":

All work related accidents (i.e. injuries sustaines juring work) that appropriately are termed "close calls" must be reported to the safety manager.

Teaching laboratory (labs):

The doors to the teaching labs. show information about the persons responsible for those rooms.

Eye rinse bottles and first aid kits are located in each room.

The fume hoods must be cleared in order for the exhaust to work.

Gas cylinders must be secured and sealed after use.

Keep the room tidy and leave it in a good condition 😊

Good laboratory conduct:

Familiarize yourself with where the emergency showers, eyewash and first aid kits are located.

New employees are provided with a lab coat. Students are expected to buy their own lab coat.

Food and drinks are not allowed in the lab.

Almost all labs are equipped with fume hoods with pull-out cabinets. It is important to keep these tidy to ensure proper exhaust. You can check the exhaust using a Vaneometer/a strip of paper.

NB: As from December 2022, a mains shutdown of the ventilation system in the building complex has been introduced, whereby the fume hoods are switched off between 6 pm and 6 am on weekdays, and between 3pm and 9 am on weekends.

Exhaust cabinets are designed for storing chemicals and temporarily storing waste containers. Always write your name, the date and the contents on all bottles.

When working with **liquid nitrogen**, one must wear a protective shield/goggles.

NB: Never bring liquid nitrogen into the elevator.

Liquid chemical spills:

Exercise caution in connection with liquid chemical spills. If the spill involves volatile liquids, leave the room. If you need to clean up spilled liquids, use Vermiculite ("cat litter"), which is located in a bucket under the sink in the chemical room in building 1131, room 123.

When the bucket is empty, fill it with fresh Vermiculite from the sack in the waste room in building 1135, room 148 A next to the iron gate.

Chemical room (building 1131, room 123):

Kiros (chemical data base) can be found at <http://www.kiros.chem.au.dk/W/>

User name: zoofys.

Password: zoofys.

All chemicals are stored in the chemical room.

Toxic substances and chemicals labeled "hazardous to your health" are stored in special, locked poison cabinets.

(fridges and freezers are also locked). *Elin is responsible for poisons.*

Theft of substances on the "suspected of terrorism" list must be reported.

Toxic chemicals that need to be stored in the fridge or freezer are located in the locked fridge-freezer in lab 133.

When handling particularly hazardous substances and materials (eg carcinogens), a form (chemical APV) must be filled out. The supervising VIP is responsible for completing this. If in doubt, don't hesitate to ask. If you need to order chemicals, contact Elin Ellebæk Petersen (safety representative) by e-mail. The procedure for ordering must be followed (to see which information to include in your e-mail – see folder in the chemical room).

All chemicals are assigned a ZF number and registered in the chemical system (Excel spread sheet on the O-drive).

Empty chemical containers **MUST** be placed in the box "Empty chemical containers for disposal" in the chemical room in order to ensure that all used chemicals are deregistered and that the stores are current.

Do NOT throw empty containers into the waste bin!!

A list of the chemicals belonging to Zoofysiologi can be seen at:

O:\Nat_Bio-Zoofysiologi\Zoofys_fælles\Kemikalieliste-Zoofysiologi\Kemikalieliste-Zoofysiologi.xlsx

Additionally, the chemicals at Bioscience can be seen in Kiros.

SDS (Safety Data Sheet) must be read for each substance.

The latest version is available at Sigma-Aldrich:

<http://www.sigmaaldrich.com/denmark.html?gclid=CJ2ti52Ks8QCFQbtAodd1wAHg>

Using safety gloves: Read the SDS (Safety Data Sheet) use of gloves, use nitrile or latex gloves. Latex may cause allergy. See penetration times as defined by the manufacturer.

Vinyl gloves are category 1 (low protection) and are only used to protect the sample or to prevent discoloration of the hands.

Isotopes: Working with isotopes requires special instructions.

Using glassware:

Inspect the equipment thoroughly. If it seems dirty, rinse it or send it for washing.

In cases of particularly critical work (e.g. preparing standards), rinse the equipment with solvent (e.g. Milli Q water, 99% ethanol or acetone).

If one does not require completely clean equipment, one can use the equipment from the drying racks. Label glass and bottles clearly with their contents, your initials/name and date.

After use: Remove all writing and all labels from the glassware (pen writing is readily removed with pure ethanol), and clean and rinse all glassware with deionized water prior to sending it for washing.

Do not return used equipment to the cabinets unwashed.

Glassware disposal:

“Household glass” waste (wine bottles, jam glass etc.) is deposited in the blue waste container in the seminar-/ coffee room (building 1131, room 127). *This will then subsequently be deposited in container outside kemikalieaffaldsrummet (building 1135, room 148 A)*

“Laboratory glass” is deposited in a container in the chemical room (building 1131, room 123). *This will subsequently be deposited in container in kemikalieaffaldsrummet (building 1135, room 148 A)*

Waste management (chemicals):

Read SDS (Safety Data Sheet) thoroughly and decide how to dispose of your waste.

Chemical waste must be disposed of in UN approved 1 or 5 liter containers (packaging code X). Record the waste group, your name and the date using a waterproof marker (do not use labels on the containers, as these peel off easily).

NB: Do not fill the container more than 90%, and mark the filling point when you use a new container. Store the container under exhaust till it can be placed in the waste room (building 1135, room 148 A).

Hazardous waste:

Must be collected in special yellow plastic bins. This applies to hypodermic needles, scalpels, Slides etc.

Solutions/mixtures:

Buffer solutions/ mixtures must be labeled with your name/initials, the date and the contents.

From June, 2017, all mixtures must be labeled with hazard labels (wich can be printed from Kiros).

A label printer is connected to the computer in the chemical room.