The Working Environment group
Department of
Technology and Innovation

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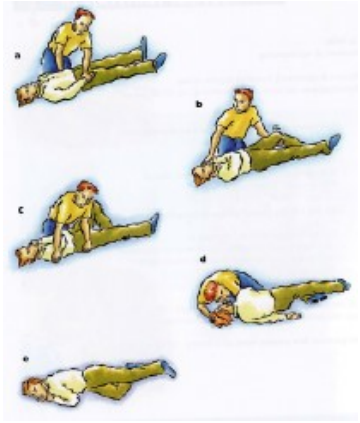
Laboratory responsible at ITI:
https://www.sdu.dk/en/om_sdu/institutter_centre/iti/arbejdsmiljoe

First Aid

Recovery position:
If the unconscious person is breathing and lying on the back, carefully roll the person towards you onto the side. Bend the top leg so both hip and knee are at right angels. Gently tilt the head back to keep the airway open.
DO NOT place a pillow under the head of an unconscious person. If breathing or pulse stops at any time, roll the person on to his back and begin CPR.



Most recent version of this folder can be found at:
http://sdu.dk/Om_SDU/Institutter_centre/ITI/Arbejdsmiljoe

Cardiopulmonary resuscitation (CPR):
You put your open mouth over the unconsciuos persons nose so that it rests on the cheeks. Then you blow until you see the persons chest rise.
Alternatively, use mouth to mouth resucitation if the nose for one reason or another should be blocked.

If there is *no sign of life* or *no breathing* the person has cardiac arrest. Start chest compressions.

Defibrillator is available at the main entrance of the TEK (building 42). Give CPR until the defribrillator is retrieved and ready to use.

CPR:
Call 112 before beginning CPR.

The rescuer sits on his knees about a foot's width from the person.

Chest compressions:
Place the heel of one hand on the breastbone right between the nipples.
Place the heel of your other hand on top of the first hand.
Position your body directly over your hands.
Give 30 chest compressions. These compressions should be 100 times per minute. Press down about 2 inches into the chest. Each time, let the chest rise completely. Count the 30 compressions quickly.
Give the person 2 more breaths. The chest should rise.
Continue CPR (30 chest compressions followed by 2 breaths, then repeat) until the person recovers or help arrives.
If the person starts breathing again, place them in the rocovery position. Periodically re-check for breathing until help arrives.

Safety signs

Mandatory:


Glasses prescribed


Gloves prescribed


Closed footwear prescribed

Prohibition:


No smoking


No admittance for people with pacemaker

Warnings:

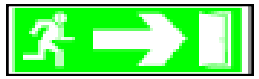
Laser Beam | Radioactivity | Danger Electric shock risk | In case of fire remove pressurized cylinder | Storage of flammable liquid

Directions:


Escape route

Eye wash


Emergency shower


Emergency exit


Staircase

Warning symbols:


Explosive


Very toxic


Corrosive


Gas bottle pressurized


Highly flammable


Extremely flammable


Harmful


Dangerous for the environment


Carcinogenic and toxic for Reproduction

Working environment guide
Department of
Technology and Innovation
University of
Southern Denmark

Information to employess and students

Further information can be found on:
http://www.sdu.dk/iti

Safety rules

Alarm call in case of fire or other accidents:

1. Prevent the accident from accelerating
2. Evacuate
3. Alarm at 112, know and give the number of the building + room
4. In case of fire: Fight the fire
5. Give first aid

Accidents/fire: In case of accidents or fire, please call help for building 42, Campusvej 55, Odense.
Falck (ambulance): 7010 2030
Taxi: 6615 4415
Emergency room: 6541 2270
Information on hazardous materials:
Giftlinien 8212 1212

Building Office: e-mail: 8888@adm.sdu.dk.
In case of acute damage by water, power failure etc.:
6550 8888, 24 hours a day

You must inform yourself of the contingency plan here:
http://sdu.dk/beredskab/ITI

Escape routes:
It is important that you familiarize yourself with the location of fire-fighting equipment and escape routes in case of an emergency.

Industrial injuries:
Injuries at work may affect both your physical as well as your mental health.
All industrial accidents or injuries must be reported to the Safety Manager who will forward a report to the Industrial Injury Board and if necessary to the "Arbejdsskadestyrelsen (Factories Inspectorate)".

Personal protective gear:
At the department you will find:
- Gloves
- Safety glasses
- Safety shoes
- Safety helmets

If required, special protective gear may be requested.

Electrical:
Never change the fuse to higher ampere, than prescribed (there is always a reason when a fuse blows)
To remedy the lack of sockets, distribution boxes are often used. Be aware that there are distribution boxes without a connection. Do not use distribution boxes without an earth connection even if it is possible.

Test wires:
It is only allowed to use test wires where it is not possible to touch the pins. Security connector with a permanent cap should preferably be used. These connectors can only insert a similar security sleeve.

Plug with permanent cap

Security sleeve

Coaxial cables with voltages up to 25 V AC power and 60 V DC must be fitted with standard BNC connector or similiar and it is possible to touch the pins.

BNC stik

SHV socket

Coaxial cables needed to high voltage must be fitted with SHV connector that is safe and touch proof and has a working voltage of 7000 V max.
Arrangement with high voltages/power should be covered so there is no risk.

Faulty equipment—and/or wiring, and equipment with signs of damaged insultion should not be used by handed over to the workshop.

Lasers:
Lasers are concentrated light of a specific wavelength that can deliver much energy at the point where it hits. Working with lasers may pose a potential risk to the user if not taking the proper precautions. You should be aware of how long it is reasonable to look at a laser, it is determined by the same wavelength, type and the electrical discharging.
A laser with a constant intensity is more dangerous than, for example, a pulse laser, which emits a very high peak power. The amount of laser light, we must be exposed to a given laser called MPE or Exposure Maximum Limit, the maximum exposure limit. Lasers emit light both within and outside the visible spectrum. Since the impact on humans is dependent on the emitted wavelength, we must highlight the work carried out with an infrared (>700nm) or ultraviolet laser (<400nm).
Always follow the instructions carefully when working with lasers and laser dyes.
At the department we have lasers of classes 2, 3 and 4.
When working with Class 3b and 4, you must always use special goggles.

General lab rules:
You are only allowed to work alone in the laboratories after 16.00 o'clock and during weekends if one of your colleagues is within earshot.
For students the 2-person rule applies. When staying in the lab, there must always be 2 persons unless the supervisor has estimated and authorized that it is justifiable to work alone.
If a student is working in a laboratory outside normal working hours, the supervisor must always have a notification.

You are obliged to follow the instructions given by the head of the department or one of the (*)WE-representatives.

Windows that can be opened are escape routes and must not be blocked by furniture or experimental setups.

Smoking, consuming food and drinking are prohibited in the laboratory.

Chemicals: Before working with chemicals, you must find information on hazardousness of the substance and how to handle it. You will find safety data sheets in the laboratory.
Online information on chemicals and reagents is available on www.kemibrug.dk.
Username and password for Kemibrug can be obtained at one of the emplyees who are members of the department working environment group.

All persons in the laboratory must wear lab-coat, reasonable footwear and safety glasses when handling chemicals.

Choice of gloves:
Use nitrile gloves when handling organic chemicals.
Use latex gloves when handling inorganic chemicals.

Toxic chemicals (marked with safety code T or Tx) should be kept in a locked cupboard. Contact the laboraty responsible person or your instructor to obtain these chemicals.

Due to risk of heat generation, never mix water into acid. But always acid into water.

Dirty glassware equipment must be washed and placed in the dishwaser.
Dirty glassware/equipment containing volatile chemicals should be kept in a fume cupboard.

Waste:
Wastepaper should be placed in the normal wastepaper baskets.

Hypodermic needles, scalpels and other sharp objects must be placed in the yellow plastic waste containers for hypodermic needles.

* WE: Working environment

Waste is sorted out according to NORD code:

Waste Group O	Does the waste contain organicperoxides, stringly oxidizing substances or does the waste react with water and exhaust inflammable or azidic gas?
Waste Group K	Does the waste contain mercury, e.g. mercury batteries, thermometers or COD liquids?
Waste Group Z	Does the waste contain miscellaneous residues in small containers from laboratories or private households, pressure bottles, aerosol cans, empty containers, asbestos, drugs, isocyanates or batteries without mercury?
Waste Group T	Does the waste contain pesticides or empty containers that have contained pesticides?
Waste Group X	Does the waste contain inorganic substances, e.g. sulphuric acid, nitric acid, soda lye, cyanide-containing baths or metallic salts?
Waste Group A	Does the waste only contain mineral oil products and no emulsifying substances, e.g. lubricating oil, fuel oil, or diesel fuel, e.g. in a mixture with water, soil or gravel?
Waste Group B	Does the waste contain substances with sulphur, fluorine, chlorine, bromine or iodine, e.g. trichloride, freon, carbon disulfide, mercaptans, PCB or similar substances which upon combustion exhaust acidic halogen or sulphur containing gases?
Waste Group C	Is the waste liquid, and does it have a heating value of 18 GJ/ton at the minimum, e.g. petrol or turpentine, diluent, toluene, alcohols or acetone? The water content of the waste must not exceed 50%.
Waste Group H	

All containers for chemical waste must be marked with a label, correctly filled in:

a) The group symbol of the waste.

b) Specification of the main constituents. Usually it will be sufficient to state 3 or 4 of the solvents that are present in the largest concentration.

c) A readable signature given by the staff member who takes the responsibility for the declaration of the waste.

In case of doubt, place the waste in the fume cupboard in the chemistry laboratory and label it with contents.