

Safety Instructions and Guidance for the print art Laboratory

Conduct yourself in a responsible manner at all times in the laboratory and always follow the lab safety rules:



Only authorized personnel are allowed to work or remain in the laboratory. Never eat, drink, or smoke while working in the laboratory.



Wear sturdy, flat and slip-proof shoes as well as safety glasses and a lab coat at all times.



In case of fire or injury, look for these signs. That is where you will find the safety facilities and/or equipment.



Important telephone numbers

operator: 8000

Facility manager: 8175

After office hours: 7540

0151/53016054

First aider: 09281 409 921

Safety-at-work expert: Mr Wurzbacher phone 8175
udo.wurzbacher@hof-university.de

emergency number: 112

Safety Instructions and Guidance for the print art Laboratory

Table of contents:

General view.....	1
Table of Contents	2
1. Safety precautions	3
1.1. General.....	3
1.2 Safety devices and protective equipment	3
2. Procedure of experiments	4
2.1 General.....	4
2.2 General machinery and equipment.....	4
2.3 Special machinery and equipment.....	5
2.3.1 Chemicals and hazardous substances.....	5
3. Disposal of laboratory waste	5
4. Health and lab cleanliness	6
5. Laboratory fire safety	6
5.1 General.....	6
5.2 First aid.....	6
5.3 In case of fire	7
5.4 Accidents involving hazardous substances	7
6. References.....	7
7. Legal validity	8

1. Safety precautions

1.1 General

The „Richtlinien für Laboratorien /GUV16.17) have to be displayed in every laboratory. They describe the correct instructions and necessary behavior in detail during a safety emergency. No one should suffer an injury, be put at risk, or be disturbed if at all possible. While conducting dangerous experiments, at least one other person should be nearby, and any other people in the room must be informed about the danger and the necessary safety precautions.

Communicate personal restrictions on your health to our staff.
e.g. epilepsy, diabetes, asthma, existing pregnancy, allergies
Pregnant and nursing mothers are not allowed to work in Drucklabor Design.

The students and the lab technicians have to be instructed each year to either refresh old information, or to learn new safety techniques and precautions.

It is prohibited to drink or eat in the laboratory; it is also forbidden to store food or beverages in the lab.

Avoid puddles or oil films on the floor. If you see them, please remove them immediately.

In case of exposed hazardous substances, inform the safety specialist.

Emergency exits and escape routes must be kept free of barricades and any other source of danger. Defects or damage to the building's construction or equipment must be told to the safety specialist or the laboratory supervisor.

1.2 Safety devices and protective equipment

You must be aware of the location of safety equipment as well as how to handle it (fire alarm box, fire extinguisher, fire blanket, first aid kit, emergency shower, eye shower).

You must also use approved equipment and clothing (e.g. lab coat, safety glasses, safety gloves, pipette and so on).

If there is any sort of risk in your activities, you have to wear the required protective equipment.

Safety specialist Mr. Wurzbacher Phone 8175

2. Procedure of experiments

2.1. General

Users have to inform themselves with the help of working instructions and operating instructions before starting any experiment, especially in terms of the risks and the safety precautions.

Safety instructions and the operational procedure must be followed exactly.

Experiments in the Lab are only permitted if another member of the company is present.

If you work after official hours, you will have to carry a working mobile phone along, in case you need to make an emergency call.

2.2. General machinery and equipment

Only the intended use of equipment and facilities is allowed.

When you become aware of any faulty equipment, it is not allowed to be used.

You have to conduct a safety inspection when breadboards cause any special danger. Respect the correct handling of tools and machines (especially drill or grinding machines).

Only use the equipment after having been completely briefed.

Trial and error is forbidden.

The briefing must be made by the laboratory supervisor or the laboratory technician.

Electrical equipment must be turned off and separated from electrical outlets.

2.3 Special machinery and equipment

The equipment in the laboratories may only be used after prior instruction. The "trying out" of equipment for which no instruction has been given is prohibited. The introduction to the machines and devices is carried out by the laboratory manager or the responsible laboratory engineer.

Overhead stirrer:

It is forbidden to wear jewellery or scarves, as these can be caught by the rotating parts.

Ironing press:

There is a risk of burns, therefore the offered heat gloves must be used.

Drying cabinet:

There is a risk of burns, so the heat-protective gloves offered must be used.

Electrostatic hand flocking device:

The device may only be used after successful instruction. The device may only be filled when it is switched off.

The operating instructions and the user manual are available and must be read again before use.

2.3.1 Chemicals and hazardous substances

All chemicals must be kept classified, clearly arranged, and in a limited amount.

Flammable liquids must be stored in a bin with a maximum 1L capacity.

Chemicals that are hazardous substances must be used according to directions in the operating instructions.

Bins and containers must be labeled clearly. If it is a hazardous substance, it must be labeled with the required danger symbol and danger identification.

It is strictly forbidden to store chemicals in commercial food packaging or in drinking bottles.

If you have to use very toxic substances or any substances that could affect genetic constitution or reproduction, you must undergo a special briefing by the appropriate, responsible staff member.

If you carry or decant chemicals, you must avoid any spills by using fitting arrangements.

Spilled liquids of hazardous substances must be removed appropriately.

If necessary, use absorbing materials that must then be disposed as hazardous waste

Activities causing hazardous substances such as gas, smoke, aerosol, or dust must be conducted under a flue.

Avoid contact with chemicals on your skin. Wear safety gloves if it is required in the operating instructions.

The safety data sheets and operating instructions of chemicals are open and available for inspection.

Highly inflammable chemicals

A fume hood should always be used.

There should be no source of ignition (e.g. a Bunsen burner flame) in the vicinity.

Only a water bath should be used to heat up highly inflammable or explosive chemicals.



Acids, alkaline solutions, and other corrosive substances

Protective glasses should always be worn, and if necessary, gloves.



Irritating, harmful and toxic substances

It is particularly important to follow the relevant safety advice, when dealing with and disposing of these substances.



Substances harmful to the environment

Such substances may not be disposed in the sewage system or waste; instead, dispose of these in the collection containers provided for liquid and solid substances.



Toxic substances

Toxic through inhalation, swallowing, and contact with the skin.

It is particularly important to follow the relevant safety advice when dealing with and disposing of these substances.



Explosive substances

Explosive and self-reactive substances.

It is particularly important to follow the relevant safety advice when dealing with and disposing of these substances.



2.7. General warning



3. Disposal of wastes

Clearly differentiate between ordinary and hazardous waste.
Chemicals that are not hazardous substances are classified as ordinary waste.
The disposal of hazardous waste is described in the operating instructions.
Highly reactive or very toxic substances must be inactivated before they are placed in the hazardous waste receptacle.
Collect hazardous waste in the appropriately marked bins.

Do not store waste in corridors, escape stairs, balconies, or roof-decks.
Proactively replace any full waste bins.

4. Care of health / cleanliness

Clean your hands well after work, especially before you eat or smoke.
The storage of chemicals in social rooms is forbidden.
Do not wear used lab coats in the library, lecture rooms, or in the cafeteria.

Leave your place tidy, return all manuals and instructions, close the windows, and lock the door.

5. Behaviour in case of fire or disaster

5.1. General

The rescue of injured or enclosed people is of the utmost priority.

Take careful action, despite the sense of urgency.

Look out for the instructions and guidelines in case of a fire or disaster; you will find them on the wall in every laboratory.

Go straight to the assembly area. Do not run and do not use the elevator.

Do not leave the parking lot, because the fire fighters or rescue worker need place on their way.

5.2. First Aid

Provide first aid care to injured or helpless people immediately.

Inform the first aid professional or trained individual in case of injury.

First aider: Liane Strobel Phone 8596

Emergency call: 112

In case of acute poisoning, call the emergency number for poison advice.

Giftnotruf München: 09 089 / 19 240

Giftnotruf Nürnberg: 09 0911 / 39 82 45 1

The assembly point for the ambulance and the emergency doctor is the student parking lot.

Remember to build a chain of survival, so you can send the rescuer to the place of the accident.

Please report the injury in the first aid book.

5.3 In case of fire

Warn and rescue people who are in danger, but do not endanger yourself.

Try to extinguish the fire with the available equipment. If this is impossible, alert the fire department by pushing the button alarm or make the emergency call.

Try to inhibit the spreading of the fire until the firefighters arrive.

Leave any dangerous area if you are not directly involved in the rescue effort.

The student parking lot is the assembly point.

5.4.1 Accidents with dangerous substances

Leave the laboratory or the dangerous area if dangerous substances are released in an unregulated manner. Alert other people in and nearby the danger area and encourage them to leave. Do not re-enter the danger area unless you are given explicit permission.

Safety specialist Mr. Wurzbacher Phone 8175

If you are unsure of whether to call the fire fighters or an ambulance, inform other employees of the company.

Push the emergency button to call the fire fighters or call 112.

6. References

A considerable amount of literature about safety at work, as well as relevant legislation, can be obtained from our safety specialist.

7. Legal validity

Rules which are also in force

- Rules of the house
- General Laboratory Instruction of the University
- GUV-Regel Laboratorien, GUV-R 120 (bisher 16.17)
- Brochure „Sicheres Arbeiten in chemischen Laboratorien“
- Safety data sheets
- Operating instructions
- Instruction manual

These laboratory Instructions are valid and obeyed as of _____ . All prior Instructions should be considered void.

Münchberg,

Aministration of the Laboratory

University = company