

# **General Laboratory and Workshop Regulations of the University of Vienna**

All function descriptions are to be understood as gender-neutral

The purpose of the General Laboratory and Workshop Regulations is to define general conditions and basic rules of conduct. It defines general conditions, prescribes conduct patterns with the existence of particular encumbrances and hazards and regulates handling of hazardous materials.

## **1. General**

The scope of these General Laboratory and Workshop Regulations extend across all laboratories and workshops incorporated in the organisational structure of the University of Vienna. The regulation defined below for laboratories shall also apply analogously to the workshops.

At the University of Vienna, those areas are described as laboratories, in which experiments, tests, analyses or measurements are carried out.

Workshops are described as those areas, in which work is carried out with available tools or machinery, to produce, process or repair items.

The Laboratory Regulations must be posted in all laboratories, so that they are easily visible.

The responsibility lies with the head of the respective organisational unit/sub-unit, to whom the laboratory is spatially or organisationally allocated. He/she is responsible for notification and observance of the Laboratory Regulations and for the fittings, condition, the corresponding technical equipment and maintenance. He/she must ensure that in practical operation, monitoring the implementation of the Laboratory Regulations and the reporting of possible deficiencies takes place by appropriately qualified employees. All groups of persons present in the laboratory must observe the instructions.

The head of the respective organisational unit must notify the full allocation of responsibilities in the individual laboratories within his/her area of responsibility, as well as possible changes to the university management.

The safety regulations shall apply to all persons present in the laboratories, regardless whether they are employees, students, other members of the university, guests or employees of external companies.

If laboratories are used by several organisational units/sub-units, all measures for the protection of physical soundness of the persons working here, the protection of the environment and sparing of resources must be agreed and coordinated.

If hazardous materials are being handled or particular hazard to persons exists, the responsible sub-unit head can prepare specific, supplemental regulations and implementation provisions for his/her unit, for example, in the form of specific laboratory and workshop regulations. However, this must not contradict the General Laboratory and Workshop Regulations. The specific laboratory and workshop regulations must be issued by the Dean and immediately sent to the Rectorate for information. The Rectorate reserves the right to suspend the special laboratory and workshop regulations at any time, without providing reasons.

## **2. Laboratory and safety regulations**

Entry to and working in the individual laboratories is prohibited without prior instruction in the general and specific laboratory regulations by the respective laboratory head. The extent and type of instruction shall be adapted to the work to be carried out and the associated hazards and encumbrances. The implementation of the instruction and its acknowledgement by the instructed person shall be confirmed in writing.

All persons working in the laboratories shall be instructed by the respective laboratory head prior to starting work and then at annual intervals. The instruction that has taken place and its content must be documented in writing. In addition to the location-specific hazards and encumbrances and the safety measures defined to prevent them, this instruction shall also include the obligation to wear appropriate personal protective equipment and clothing.

External persons, such as guests and employees of external companies may only enter the laboratory premises when accompanied or after appropriate instruction. The instructions of personnel must be observed.

The intervals for the regular function checks for the working materials requiring inspection must be complied with. Possible defects that are determined must be immediately rectified. The inspection books and inspection reports shall be kept in the office of the sub-unit head. Prior to any use, a visual inspection must additionally be carried out.

Cleaning the laboratory and workshop premises belongs to the tasks of the users. Exceptions from this are only those areas, where cleaning personnel that has not been trained accordingly does not come into contact with any hazardous materials while cleaning.

### **Individual workstations**

Working alone or on one's own is regarded as activities that are carried out by one working person alone, without the presence of other persons.

A person is regarded as "working alone and not sufficiently safe", if after an accident (activities with increased accident risk) or after suddenly falling ill (activity without increased risk of accident = remote workstation), first aid cannot be administered within an "acceptable period of time". Such situations are always related to "restricted contact possibilities" with other persons.

Working alone is only permitted if:

- time-delayed assistance while working alone or during the shift is possible without consequential damage,
- timely assistance is ensured through suitable organisational and/or technical safety measures and
- persons working alone and providing assurance are sufficiently informed and instructed.

An employee may only work alone at a workstation with an increased risk of accidents or a remote workstation, if effective monitoring – within the meaning of ensuring timely assistance in case of injury or the occurrence of damage – is ensured (Article 61 Par. 6 Employee Protection Act).

For work involving increased risk of accidents (even with sources of danger, which are not specifically shown), if immediate assistance is required, another person **must** be within visual **and** calling range.

If this should not be the case, e.g. for work outside of operating hours/at weekends, measures must be taken, which ensure sufficient monitoring and **effective** safety measures, in order to be able to provide first aid after an accident or sudden illness, within an "acceptable period of time". **If this is not possible, working alone shall be prohibited.**

(According to the brochure of the Labour Inspectorate (BMWA), increased risk of accident means: Foreseeable accidents or hazardous incidents with foreseeable injuries or damage to

employees **and** threat to life, lasting damage or unacceptable pain phases due to non-timely assistance.)

It is therefore in principle prohibited to work alone in laboratories with hazards/sources of hazards, except if effective safety measures are taken. However, there are certain hazards, for which it is always prohibited to work alone in the laboratory, in any case, as the maximum time range until assistance is provided is very short, with zero to a few minutes (e.g. with risk of suffocation or loss of consciousness due to effects from chemical materials/gases, etc.).

**Those activities for which working alone is always prohibited are to be defined in writing by the head of the respective sub-unit, for each individual case.**

All persons working in the laboratories must conduct themselves, such that hazards are avoided as far as possible. For activities with a high hazard potential, the persons working in the direct vicinity must be informed.

Cleanliness and tidiness in all laboratory areas are for the purpose of safety and therefore have top priority.

Work materials that are no longer required, including all glass devices used, must be cleaned and put away, immediately after work is finished.

Possible deficiencies should be reported to the person responsible for the laboratory. Assistance with the rectification of such defects shall be provided by the safety representative or skilled safety worker. They shall also be informed regarding structural changes, the use of new work materials and substances.

All laboratory rooms must be kept locked after work is completed.

### **3. *Noise and vibrations***

In all laboratories incorporated into the organisational structure of the University of Vienna, in which noise and vibrations occur, Appendix I shall apply (see: <http://rrm.univie.ac.at/download/>) as a component of these laboratory regulations.

### **4. *Handling hazardous materials***

In all laboratories incorporated into the organisational structure of the University of Vienna in which

- experiments, tests, analyses or measurements are carried out and
- hazardous materials are handled

Appendix II shall apply (see: <http://rrm.univie.ac.at/download/>) as a component of these laboratory regulations.

Work materials are all materials, preparation and biological agents, which are used for the work. "Use" also includes extracting, producing, occurrence, creation, use, consumption, processing, handling, filling, refilling, mixing, removal, storage, keeping, stocking for use and internal transportation.

Hazardous work materials can occur in solid, liquid or gaseous form. Dust, regardless of type and origin, as well as aerosols, are also covered by these general laboratory regulations.

The safety regulations for handling radioactive materials are defined by legal regulations and official, individual notifications.

## **5. Work materials**

### **General**

Work materials may only be made available, which comply with the applicable legal regulations regarding safety and health requirements, in respect of construction, building and other protective measures. A symbol exists, which indicates that work materials comply with the requirements. This is generally the CE symbol.

The CE symbol is only an administrative symbol and shows compliance with the provisions of one or more EU directives. It is not a symbol of origin, quality symbol, certification mark or standard symbol.

If changes should occur to work materials or improper use should take place, the validity of the CE symbol shall lapse. In these cases, ascertaining the hazard potential originating from these work materials is indispensable.

This must take place in the form of a hazard analysis with subsequent documentation, among others, possible encumbrances, hazards, necessary measures, safety precautions and instruction content must be detailed. The person responsible for this is the employee who has carried out changes to a work material, through which the CE symbol has lost its validity, e.g. with test superstructures or improper use/combining of devices or work materials.

The hazard analysis can be carried out by the employee independently, or in cooperation with the skilled safety workers at the University of Vienna, internal and external experts.

For work materials without a CE symbol, the responsible sub-unit head shall initiate a hazard analysis and the appropriate measures shall be taken.

When work material is purchased, which is certified according to the applicable legal regulations, e.g. the Low-Voltage Electrical Equipment Regulations or the Machine Safety Regulations, it can be assumed that this work material complies with the regulation regarding safety and health requirements in respect of construction, building and protective measures.

Appendix A of the Work Materials Regulation (AM-VO) contains the relevant legal regulations regarding safety and health requirements for employee protection. Furthermore, this list can be found on the home page of the Labour Inspectorate: <http://www.arbeitsinspektion.gv.at/> in the section: Machinery/General/Legal regulations on safety and health requirements.

All work materials must always be used properly, as per the guidelines of the operating instructions and with the necessary care.

Only proper and verifiably maintained work materials may be operated. A visual inspection of the system, the machine or the device must be carried out, prior to each use. Faulty systems and machines must not be operated.

Hazardous areas, such as moving parts, drives, shafts, V-belts and similar must be secured with protective covers, cladding or other screening, so that work accidents become impossible.

Work materials for the purpose of creating high-energy radiation, which is harmful to the human body, shall be operated in accordance with the respective regulations for use.

Safety equipment must not be deactivated, bypassed or removed.

### **Information and instruction**

When the use of a work material is associated with hazards to safety and health of persons, the head of the respective organisational unit/sub-unit, who is spatially or organisationally responsible for the laboratory, must ensure that all persons who use this work material are verifiably instructed regarding the hazards and encumbrances resulting from the use of this

work material, prior to initial use and at regular intervals. The intervals at which this instruction takes place shall be defined jointly with the responsible safety representative and skilled safety worker; however, it must take place at least once per year.

Furthermore, the head of the respective organisational unit/sub-unit must ensure that all persons who use this work material receive sufficient information.

This information is not necessary, if the persons to be informed have acquired sufficient knowledge regarding the mode of operation and use of the work material during the course of their training or previous professional activity.

### **Inspection duties**

Federal laws and regulations, such as the General Employee Protection Regulation AAV, the Employee Protection Act ASchG and the associated regulations, as well as federal state regulations, form the legal bases and define which systems and machinery are subject to inspection duties.

The following applies:

- These inspections may only be carried out by suitable, competent and authorised employees of the University of Vienna, civil engineering firms and industrial companies, within the context of their authorisations.
- These inspections must take place according to the valid standards, regulations and best available technology. These must be specified.
- The legally prescribed inspection intervals must be complied with.
- Inspection documents and inspection reports must be kept in written form and a copy included with the safety and health protection documents.
- Defects that are determined within the context of one of these inspections must be rectified as soon as possible. Systems or machines, which show serious defects or deficiencies that have been determined in this manner, must not be operated.

## **6. Fire and explosion protection**

The Fire Safety Regulations of the University of Vienna define basic conduct. Compliance with these is compulsory of all persons active within the University of Vienna.

Fire safety facilities must never be deactivated. It is prohibited to wedge open fire doors.

Work that is subject to fire hazards, e.g. work with open fires or hot work in laboratories may only be carried out with the prior consent of the responsible Fire Safety Officer, or his/her deputy. If necessary, a fireguard may need to be designated, also beyond the duration of the work.

After discovering a fire, the fire service must be alerted.

In the case of an alarm, the laboratory operation must be immediately discontinued and the university building evacuated, by using the signposted emergency exits.

For persons with disabilities relating to perception or mobility, rapid and unhindered evacuation of the university building must be facilitated through organisational and/or technical measures.

## **7. First aid**

For basic first aid measures, please see Appendix III of these laboratory regulations (see: <http://rrm.univie.ac.at/download/>).

**The following always applies:**

- **observe self-protection!!!**
- **in case of injuries, immediately administer first aid and request further assistance and notify ambulance services as soon as possible**
- **in case of an accident with chemical materials, contact the Poison Information Centre (01/406 43 43)**

The work materials used in the laboratory also include materials with a high hazard potential. These are classified as irritant, corrosive, flammable, toxic and harmful (e.g. carcinogenic, mutagenic, toxic for reproduction and teratogenic) materials.

Depending on the type of work materials, different types of first aid measures are derived; more details can be found in the specific first aid instructions of the safety data sheets.

In the case of an accident occurring, the affected party, or if this is not possible, the emergency paramedic should be provided with the safety data sheet and - if available - the test/experiment records.

### **The most important emergency numbers**

<b>Emergency doctor/ambulance</b>	<b>141 / 144</b>
<b>Fire service</b>	<b>122</b>
<b>Poison Information Centre</b>	<b>01 / 406 43 43</b>

## **8. Final provisions**

The General Laboratory and Workshop Regulations are a guideline of the Rectorate.

## **Appendices**

See <http://rrm.univie.ac.at/download/>

The Vice Rector:  
Jurenitsch

## APPENDICES

### to the General Laboratory and Workshop Regulations of the University of Vienna

#### I. Noise and vibrations

Protecting the health of all persons in the University of Vienna facilities from impairments and damage caused by noise and vibration is compulsory.

Noise = any type of sound in an audible frequency range

Vibrations = mechanical oscillations or agitations that are transferred to the human body by direct contact.

A differentiation is made as follows:

- Hand-arm vibrations: these are mechanical oscillations, which, when transferred to the hand-arm system of the person, cause hazards to health and safety, particularly circulatory disorders, bone or joint damage, neurological or muscular illnesses.
- Whole-body vibrations: mechanical oscillations, which, when transferred to the entire body, can cause hazards to health and safety, particularly back pain and damage to the spine.

#### Trigger value

The exposure should not exceed the following trigger values, as far as this is possible according to the state-of-the-art

Hand-arm vibrations: 2.5 m/s<sup>2</sup>

Whole-body vibrations: 0.5 m/s<sup>2</sup>

Noise that is harmful to hearing: 80 dB

For employees in areas where the trigger value for noise is exceeded, hearing protection must be provided.

#### Exposure threshold values

The following exposure threshold values must not be exceeded:

Hand-arm vibrations: 5 m/s<sup>2</sup> (adolescents: 2.5 m/s<sup>2</sup>)

Whole-body vibrations: 1.15 m/s<sup>2</sup> (adolescents: 0.5 m/s<sup>2</sup>)

Noise that is harmful to hearing: 85 dB

For employees in areas where the exposure threshold value for noise that is harmful to hearing is exceeded, the hearing protection must be selected, such that the individual exposure of the employee does not exceed the exposure threshold value.

Employees in areas where the exposure threshold value for noise that is harmful to hearing is exceeded, must wear this hearing protection.

A list of employees exposed to noise must be kept, pursuant to Article 65 Par. 4 L 6 of the Employee Protection Act, who are personally exposed to noise above the exposure threshold value for noise that is harmful to hearing, whereby the individual effect of the personal protective equipment is disregarded.

Areas in which an exposure value for noise that is harmful to hearing or, with the transfer of vibrations through the floor, the exposure value for whole-body vibrations is exceeded, must be identified appropriately. If this identification is not possible and is justified on the basis of the exposure hazard, these areas must also be delineated and access restricted.



### **Threshold values for specific rooms**

Rooms in which mainly mental activities are carried out: 50 dB

Rooms in which basic office activities or comparable activities are carried out: 65 dB

In lounges or on-call rooms, medical rooms and residential rooms, whereby noises that are caused by persons are not included: 50 dB

In the rooms listed above, the exposure to whole-body vibrations must be kept as low as possible and limited to the trigger value.

## **II. Handling hazardous materials**

The scope of Appendix II covers all laboratories incorporated into the organisational structure of the University of Vienna, in which

- experiments, tests, analyses or measurements are carried out and
- hazardous materials are handled

With all work carried out in the laboratory premises, it is compulsory to wear a cotton lab coat and sturdy, closed and non-slip shoes. Depending on the activity, safety glasses or a face protection visor shall also be worn. If required, in case it is specified in the respective operating instructions or safety data sheet, additional personal protective equipment shall be worn, such as protective goggles, face protection, gloves, breathing protection or also hearing protection. All protective equipment must be kept protected from contamination.

The safety data sheets for all work materials must be collected and kept so that they are easily accessible to all persons working in the laboratories. This can take place in electronic form, e.g. by saving on the institute server. The storage location of all safety documentation, such as safety data sheets, must be part of the instruction for persons working in the laboratory.

Prior to initially handling hazardous materials, the users should determine the hazards that could occur from the materials or possible reactive products. This can take place using the chemical list in the laboratory, the operating instructions, safety data sheets or the hazard information on the original packaging.

All containers shall be labelled with the name of the work material, the preparation, the hazard symbols and descriptions. On larger packaging, from a volume of approx. 1 l, the R-phrases and S-phrases must be provided. If this packaging is for the purpose of longer storage, the name of the manufacturer should also be specified.

Eyewash bottles, chemical bonding agents – their type must correspond to the work materials used – and environmentally-dependent breathing protection equipment, so-called emergency escape hoods, must be kept available. The choice of breathing protection filter must be in accordance with the hazardous materials used.

Storage of food, which is intended for consumption by persons, in laboratory areas where hazardous materials – regardless of the type – are stored, kept or converted, is prohibited. In particular, food must not be kept in refrigerators that are simultaneously used for storing chemicals.



The storage of hazardous material at the workplace, which exceed the daily requirement, is prohibited.

Hazardous materials must never be stored in food packaging.

Smoking is strictly prohibited in all laboratory premises. Eating and drinking is also prohibited in these areas.

Anyone who carries out an experiment may only leave the laboratory workplace, if constant monitoring is not necessary, or if a colleague, who is informed about the progress of the experiment continues the monitoring. With hazardous activities, at least two persons must be present.

Experiments carried out without supervision must be provided with signs that are easily visible. These must include the following details: Reaction type, chemicals used, base quantity, start of experiment and approximate reaction period.

Apparatus in which lightly volatile, explosive, combustible or toxic and foul smelling work materials are being converted or created, must be set up in an exhaust hood. A similar procedure must be following for reactions where gases occur, or can occur, as a main or subsidiary product.

During operation, the front sliders on the exhaust hood must be kept closed, whereby a sufficiently dimensioned supply air opening must always be available between the front window and the fume cupboard work surface.

Defective flues must not be used and must be immediately reported to the person responsible for the laboratory.

Exploratory and analysis devices may only be used after instruction regarding possible hazards and subsequent approval by the person responsible for the laboratory.

Work materials that have leaked or fallen aside must be immediately removed by the person causing it in the entire laboratory area, but particularly in the area of the weighing scales, if necessary, using chemical bonding agents.

Chemicals must be reviewed at least once per year regarding the necessity of them remaining in the laboratory and surrendered or disposed of.

The corresponding definitions of the Chemical Act 1996 BGBl. [Austrian Federal Gazette] I No. 53/1997 as amended shall apply (ChemG 1996) and the Employee Protection Act BGBl. I No. 450/1994 as amended (ASchG 1994).

Hazardous materials are all materials that display **at least one** of the following **characteristics**:

- **Explosive**

Explosive



**E = explosive**

- **Combustible**

Oxidizing agents, extremely flammable, highly flammable or flammable characteristics



**O = oxidizing agents**



**F+ = extremely flammable / F = highly flammable**

- **Harmful**

Very toxic, toxic, harmful (less toxic), corrosive, irritant, carcinogenic, mutagenic, toxic for reproduction or sensitising characteristics

Fibrogenous, radioactive



or biologically inert characteristics



**T+ = very toxic**



**T = toxic**



**Xn = harmful**



**C = corrosive**



**Xi = irritant**

- **Groups 2, 3 and 4 biological materials**



Group 2: Illness and risk to employee, prevention and treatment possible













Group 3: Serious illness and serious risk to employee, prevention and treatment possible

Group 4: critical illness and critical risk to employee, prevention and treatment not possible

### **Definitions:**

- **very toxic:** Materials or preparations that can cause acute or chronic health damage or death, if inhaled, swallowed or absorbed through the skin, in small quantities, e.g. nitrogen dioxide, hydrogen cyanide
- **toxic:** Materials or preparations that can cause acute or chronic health damage or death, if inhaled, swallowed or absorbed through the skin, in small quantities, e.g. chlorine, lindane, quicksilver
- **harmful:** Materials or preparations that can cause acute or chronic health damage or death, if inhaled, swallowed or absorbed through the skin, e.g. n-hexane, methyl chloride, glycol
- **corrosive:** Materials or preparations that can destroy living tissue through contact, e.g. sodium hydroxide anhydrous
- **irritant:** Materials or preparations that - without being corrosive – can cause infections through short-term, longer or repeated contact with skin or mucous membranes, e.g. acetone, sodium carbonate
- **carcinogenic:** Materials or preparations can cause or increase the frequency of cancer, if inhaled, swallowed or absorbed through the skin, e.g. asbestos, benzol
- **mutagenic:** Materials or preparations that can cause a change to genetic material, through which inheritable damage can be caused, through inhaling, swallowing or absorbed through the skin, e.g. acrylamide
- **toxic for reproduction:** Materials or preparation that can cause non-inheritable damage to reproduction or increase the frequency of this damage (harmful to reproduction), impairment of physical or mental development of offspring after birth or impairment of male or female reproductive functions, if inhaled, swallowed or absorbed through this skin, e.g. lead, dimethylformamide
- **sensitising:** Materials or preparations that can cause oversensitivity reactions, if inhaled or through skin contact, e.g. grain flour dust, latex, formaldehyde
- **fibrogenous:** Suspended matter that can cause lung diseases, which accompanies the formation of connective tissue, if inhaled, e.g. quartz dust, asbestos
- **biologically inert:** Dusts that are neither toxic nor fibrogenous, which do not cause any specific illnesses, however can cause impairment to the functions of breathing organs, e.g. fine iron oxide dust

**The following joint storage prohibitions must be observed:**

Joint storage prohibitions						
	0	+	0	-	-	-
	+	+	+	+	0	-
	0	+	+	0	-	-
	-	+	0	+	-	-
	-	0	-	-	+	-
	-	-	-	-	-	+
Explanation of symbols	0 check (e.g. acids with acids: yes; acids with alkalines: no)					
	+ store together			- do not store together		

Materials that are combustible, flammable, highly inflammable or explosive, or from which such reactive products could result, may only be stored in explosion-protected devices (dry cabinets, refrigerators).

Transporting hazardous materials and pressurised gas bottles with one of the lifts is basically only permitted, if no additional persons are also being transported.

Larger containers of acids, alkalines or solvents must be transported in transport containers, e.g. a tub.

Disposal instructions and correct conduct in case of accidents, such as spilling the work material, must be noted and observed, if required.

Reactive waste is to be handled according to the instructions of the laboratory personnel.

For storage and later disposal of laboratory waste, the designated collection containers are to be used.

Toxic materials and preparations (as per ChemG 1996 as amended) shall be kept in closed off, specifically identified, locked rooms or own toxic cabinets. They must not be stored out in the open and unsupervised in the laboratory. The authorised toxic substance receiving officer of the sub-unit shall be responsible for administration of the toxic substances.

Anyone who uses toxic substances must keep records regarding the origin and location of each toxic substance, with the following details:

- Name of the toxic substance (chemical name, trade name)
- Quantity of the toxic substances purchased,
- Reference to the purchase document (delivery note, invoice, etc.),
- Date of purchase,
- Name of supplier,
- Quantity used and purpose, in case of processing a toxic substance, also the name (chemical name, trade name) of the resulting products and the respective quantity of each individual toxic substance used for this.

In rooms in which toxic substances are stored or regularly used, the telephone number of the Poison Information Centre (as per GiftVO [Poison Regulations] as amended) shall be posted in an easily visible location. If this room has no landline telephone line available, the telephone number of the Poison Information Centre must also be posted by the nearest landline telephone.

Sucking up liquids in pipettes by mouth is prohibited. The appropriate suction balls or other pipette aids must be used for this.

### **III. Basic first aid measures**

#### **III.a. Poisoning**

##### **A. Inhalation (breathing in) of gases/vapours/aerosols**

- Rescue injured persons and take them to fresh air; particularly pay attention to self-protection (breathing protection mask)!
- Always notify the emergency services!
- Immediately administer artificial respiration, if the person has stopped breathing. If appropriate, apply an oxygen mask
- Only transport or situate injured persons in a lying down position
- In any case, consult a physician regarding possible delayed complications after a symptom-free interval

##### **B. Ingestion (swallowing) of poisons (liquids or solids, which are not corrosive or solvents)**

- Secure the poison
- Notify emergency services and Poison Information Centre (Tel. 406 43 43)
- First aid measures, if necessary
- Keep person still and protect from loss of heat
- Treat any ingestion of unknown chemicals like a poisoning
- In no case administer supposed standard assistance measures, e.g. administering milk, salt water or similar
- Do not induce vomiting
- Only administer active charcoal at the explicit recommendation of a physician

##### **C. Poisoning through skin contact**

- Immediately remove the injured person's clothing (avoid putting yourself into danger)
- Clean affected skin areas with plenty of water, possibly soap, but never with other chemical substances, do not use hot water or rub vigorously
- Notify emergency services

#### **III.b. Chemical burns**

##### **A. Chemical burns on the skin**

- Immediately remove the injured person's clothing (avoid putting yourself into danger)
- Rinse off with plenty of running water (at least 15 minutes) do not carry out any neutralisation
- Cover exposed burns in a sterile manner and consult a physician

## **B. Chemical burns on the eyes**

- Always notify the emergency services
- Rinse with plenty of running water (at least 15 minutes) do not carry out any neutralisation
- In order to avoid also injuring the healthy eye, the rinse water must not enter into the other eye, e.g. the affected eye must be lower than the healthy eye (head horizontal). Then rinse from inside (nose) to outside (cheek) with plenty of running water or an eye shower/eyewash bottle.
- Bandage the eye (blindfold)

## **C. Internal chemical burns**

- Always notify the emergency services
- Call the Poison Information Centre (Tel. 406 43 43)
- Keep the person still and protect him/her from heat loss until the emergency services arrive
- Do not carry out any attempts at chemical neutralisation
- Only administer water after consultation with the Poison Information Centre and if the injured person is willing, in careful sips.

### **III.c. Open wounds or mechanical injuries**

#### **A. Minor bleeding**

- Do not touch or wash out wound, do not remove any foreign objects from the wound
- Cover wound in a sterile manner, apply protective bandage, do not disinfect
- Visit a hospital

#### **B. Heavy bleeding**

- Notify emergency services
- Pay attention to symptoms of shock, shock position, keep warm
- Apply pressure bandage. Apply wound pad or similar with bandage as tightly as possible
- Keep injured extremity elevated

#### **C. Life-threatening bleeding**

*Such bleeding exists if arteries are opened. Blood is light red, bleeding intermittent*

- Immediately notify emergency services
- Put on gloves, press down using fingers
- Tie off with non-constricting material (triangular bandage, wide belt, etc.) Only tie off on the heart-side of the injury and only on the thigh or upper arm. Do not remove ligature.
- Note time of tying off!!!

### **III.d. Burn wounds**

#### **A. Minor burns or scalds**

- Immediately cool with cold, running water (at least 15 minutes)
- Do not open burn blisters
- Do not apply any ointments, powder, oil or similar to the burns or scalds
- If in doubt, consult a physician

#### **B. Major burns or scalds**

- Notify emergency services
- In case of scalds, immediately remove clothing (cut open)
- With burns, remove clothes if they are not adhering to skin
- Cool sufficiently with cold, running water (at least 15 minutes)
- Do not apply any ointments, powder, oil or similar to the burns or scalds
- Cover open burn wounds in a sterile manner (aluminium-coated wound bandages)
- Protect from heat loss

With burns over large areas, drink plenty of water in sips