

On the basis of and in accordance with the Health and Safety at Work Act (Official Gazette of the Republic of Slovenia, No. 43/11) and in accordance with Article 74 of the Statutes of the University of Ljubljana (Official Gazette of the Republic of Slovenia, No. 4/17 and amendments) and Article 79 of the Rules on the Organisation and Operation of the Faculty of Chemistry and Chemical Technology of the University of Ljubljana of 21 June 2019 and amendments, the Senate of the Faculty of Chemistry and Chemical Technology of the University of Ljubljana (hereinafter the UL FKKT), at its 29th regular meeting of 21 June 2024, adopted the following

LABORATORY SAFETY RULES OF THE UL FKKT

1 Area of validity

- 1.1 The Laboratory Safety Rules apply to laboratories of the Faculty of Chemistry and Chemical Technology of the University of Ljubljana (hereinafter: the UL FKKT).
- 1.2 The Laboratory Safety Rules must be observed and followed by everyone in the laboratory – employees, students, and visitors (hereinafter the users).
- 1.3 In addition to the Laboratory Safety Rules, the users must comply with the provisions of the Declaration of Safety with Risk Assessment, the Fire Safety Regulations, the safety data sheets, and written and verbal work instructions.

2 Definitions

The terms used in these Laboratory Safety Rules have the following meanings:

- 2.1 Hazardous work in the laboratory includes procedures and tasks, which carry the risk of an incident. The following is considered hazardous work in the laboratory:
 - work with hazardous or unknown chemicals;
 - work involving exposure to biological agents (except agents included in Safety Class 1);
 - work conducted at low or increased pressure and/or temperature;
 - work with electrical equipment with voltage over 1kV;
 - work with sources of ionising radiation;
 - work involving work equipment with unprotected moving parts;
 - work at height.
- 2.2 Hazardous chemicals are substances and mixtures, which have at least one of the following hazardous properties: physicochemical hazard, health hazard or environmental hazard.
- 2.3 The head of the laboratory is the head of chair, head of the infrastructure centre, head of the programme group or the project manager or head of the research centre, who is appointed by the dean at the proposal of the head of chair.
- 2.4 The laboratory supervisor is a full-time UL FKKT higher education teacher, assistant or independent specialist adviser, who is appointed by the head of the laboratory.
- 2.5 Hazardous waste is waste containing hazardous substances, which is classified into one of the waste categories as set out in the classification list of hazardous waste.
- 2.6 An incident is any event resulting in occupational injury, illness, fire and/or explosion, the unintended release of chemicals, failure of work equipment, property damage or an environmental hazard.



3 General provisions

- 3.1 The Laboratory Safety Rules must be displayed in a prominent position in each laboratory.
- 3.2 Work in the laboratory must be organised and conducted in such a way as to minimise the risk of incidents.
- 3.3 Ensuring a safe laboratory environment is the responsibility of the faculty management, the head of the laboratory, the laboratory supervisor, the occupational health and safety department, the maintenance department, and the users. However, the responsibility for safety at work lies primarily with the individual doing the work.
- 3.4 At least two people must be present whenever hazardous work is being conducted in the laboratory. Hazardous work may be carried out in the presence of an individual familiar with the hazards, safety measures, and procedures in the event of an incident.
- 3.5 The opening hours of the laboratories are Monday to Friday from 7 a.m. to 8 p.m. and Saturday from 8 a.m. to 12 noon.
- 3.6 Work outside these hours is only permitted with the written permission of the head of the laboratory. The permission may only be issued to full-time or part-time employees of the UL FKKT. Contractors working in UL FKKT laboratories are issued permission in accordance with the terms and condition of their contract. ____
- 3.7 Conducting an experiment and/or using work equipment with increased risk outside opening hours must be reported by users in line with the procedure set out in the Declaration Form for Using Work Equipment/Conducting an Experiment with Increased Risk outside Opening Hours.
- 3.8 Damaged devices and inventory may not be used. Any faulty equipment or defects must be reported immediately to the laboratory supervisor.
- 3.9 No food or beverages are allowed in the laboratory.
- 3.10 Access to exits and electrical switches must be unobstructed at all times in accordance with regulations.
- 3.11 A risk assessment shall be prepared for each laboratory in accordance with the Laboratory Safety Checklist. Employees are required to familiarise themselves with the risk assessment before using the laboratory. The head of the laboratory, in cooperation with the occupational health and safety department, shall review and update the risk assessment if circumstances change, which may affect the safety risk and health of laboratory users.
- 3.12 A risk assessment shall be prepared for female students and employees who are either pregnant, have recently given birth or are breastfeeding and work in the laboratory, in accordance with the annex to the Declaration of Safety with Risk Assessment.
- 3.13 The use of mobile phones and other multimedia devices in the laboratory is prohibited, except in the case of incidents or in connection with laboratory work. The devices may also be used by personnel who have their workstation in the laboratory.
- 3.14 Long hair must be pinned up or tied back.
- 3.15 When cleaning the laboratory, it is necessary to follow the Safety Instructions for Cleaning Laboratories, which are part of the Declaration of Safety with Risk Assessment.
- 3.16 After you have finished work in the laboratory, wash your hands thoroughly. Wash other parts of the body, which were exposed to hazardous chemicals, as needed.



4 Personal protective equipment



- 4.1 All users must wear a coat and goggles with sufficient side protection at all times when working in the laboratory, unless otherwise specified in the risk assessment for the particular laboratory. The obligation of personal protective equipment is specified by a safety sign on the outside of the door to the laboratory.
- 4.2 Depending on the type of work, users must use the personal protective equipment prescribed by the manufacturers' instructions, safety data sheets, work instructions, and generally recognised rules, standards, and regulations of the Republic of Slovenia.
- 4.3 The coats used in the laboratory may not be worn in the library, lecture halls, meeting rooms or snack bars nor outside Faculty premises. When working in the laboratory, all persons must wear coats that comply with the internal regulations.
- 4.4 Footwear must protect the entire foot and allow a firm and safe grip. Users are not allowed to wear slip-ons, sandals or high heels.



5 Handling of chemicals

- 5.1 Safety data sheets for all commercially-available hazardous chemicals are available on the intranet or the Internet.
- 5.2 Prior to using hazardous substances, users must be familiar with the hazards and protective measures.
- 5.3 Only the minimum necessary quantities of chemicals may be stored in the laboratory. A record of chemicals must be kept for each laboratory and periodically updated by the laboratory supervisor. The maximum packaging unit allowed is 2.5 l.
- 5.4 Chemicals must be stored in dedicated cabinets, taking into account the incompatibility of chemicals. Flammable, corrosive, and toxic chemicals must be stored in dedicated safety storage cabinets. The quantity of chemicals in the laboratory must not exceed the capacity of the storage cabinets.
- 5.5 It is prohibited to store hazardous chemicals on counters, open shelves and in fume hoods.
- 5.6 It is prohibited to store chemicals in food-grade packaging.
- 5.7 The packaging of a non-commercial chemical or a sample must be labelled so as to allow identification (substance, concentration, user).
- 5.8 Carcinogens, mutagens, acutely toxic substances, and substances toxic to reproduction must be kept locked or otherwise protected, allowing access only to qualified personnel. Only the amount required for each experiment may be dosed at any one time. A record of use (substance, quantity, date, user) must be kept.
- 5.9 All work involving carcinogens or mutagens must be conducted in the fume hood.
- 5.10 Work during which hazardous substances may be released as gases, fumes, steam, aerosols or dust must be carried out in the fume hood or in a place with adequate local ventilation.
- 5.11 The decanting of chemicals must be carried out in such a way as to prevent spillage. In the event of a spillage, appropriate absorbents must be used.
- 5.12 Chemicals may only be transported in closed containers using a basket or trolley.
- 5.13 No mouth pipetting is allowed. Appropriate technical aids must be used for pipetting.
- 5.14 The purchase and use of explosive substances or open sources of ionising radiation are subject to prior authorisation by the competent authority.
- 5.15 Work with genetically modified organisms is only allowed in contained systems. The contained system used for work with genetically modified organisms must be previously registered with the competent ministry.





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6 Working with industrial gases

- 6.1 Only industrial gases coming from extraction points may be used in the laboratory.
- 6.2 A suitably trained person (storekeeper for chemicals and industrial gases) is in charge of the industrial gas cylinders.
- 6.3 The use of gases in small cylinders (up to 10 l or up to 3 l for flammable gases) is permitted only in fume hoods or in a place with adequate local ventilation, for a predetermined period of time, and in laboratories where a gas detection system is installed.
- 6.4 Before using gases in small cylinders outside fume hoods, it is necessary to study the contents of the safety data sheet, to carry out a risk assessment for the use of the gas in a small cylinder, and to complete the Laboratory Safety Checklist.
- 6.5 The small cylinder shall be delivered to the laboratory by a person qualified for the handling of industrial gases, who shall also properly connect it and disconnect it immediately after use, and return it to the gas storage facility. The user of the gas in cylinders must close the valve on the cylinder immediately after each use of the gas.
- 6.6 Gases in small cylinders may only be used during laboratory operating hours and in the presence of the user at all times.
- 6.7 Before using liquid nitrogen or gases in small cylinders, users must be aware of the hazards and familiar with protective measures.

7 Waste

- 7.1 Hazardous waste and glassware shall be separated according to type and disposed in dedicated containers.
- 7.2 Hazardous chemicals must never be poured down the drain or disposed of in municipal waste containers.
- 7.3 Hazardous waste must be handed over to the storekeeper for chemicals and industrial gases.



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8 What to do in case of an incident

- 8.1 Before intervening in case of an incident, make sure that your actions will not endanger your own safety or the safety of users.
- 8.2 First aid must be administered immediately to injured persons. First aid cabinets are located in student laboratories and in kitchenettes. There is a list of people qualified to administer first aid with their telephone numbers on the first aid cabinets.
- 8.3 In the event of a major incident, which requires the help of the maintenance department, immediately notify the reception desk by calling the internal telephone number **8000**.
- 8.4 Small incipient fires shall be extinguished using fire extinguishing equipment and people at risk must be evacuated. The location of all fire extinguishing equipment is marked on the evacuation plan. If you are unable to successfully extinguish the fire, call the reception desk at the internal telephone number **8000**.
- 8.5 If you hear the industrial gas alarm, please vacate the premises immediately and inform the reception desk by calling the internal telephone number **8000**.
- 8.6 In the event of a chemical spillage, absorbents must be used and the precautions given in the safety data sheet must be followed.
- 8.7 All incidents must be reported to the head of the laboratory or one of the responsible persons, who are listed on the notice board at the exit from the laboratory.

9 Validity

The Laboratory Safety Rules shall enter into force once adopted by the Faculty Senate. They are published on the UL FKKT intranet and displayed in a prominent position in each laboratory.

Prof. Dr Andreja Žgajnar Gotvajn, Dean of the UL FKKT

