University of Ljubljana
Faculty of Chemistry and Chemical Technology

Based on and according to the Health and Safety at Work Act (Official Gazette of the RS, No. 43/11) and according to Article 77 of the Statutes of the University of Ljubljana and Article 69 of the Rules on the Organization and Functioning of the Faculty of Chemistry and Chemical Technology of the University of Ljubljana, the Senate at its 38th Meeting on 19 May 2017 adopted the following

LABORATORY SAFETY RULES FOR UL FKKT

1 Area of validity

1.1 The Laboratory Safety Rules apply to laboratories belonging to the Faculty of Chemistry and Chemical Technology of the University of Ljubljana (hereinafter: UL FKKT).

1.2 The Laboratory Safety Rules must be observed and taken into account by everyone in the laboratory – employees, students, and visitors (hereinafter: users).

1.3 Additionally, users must also respect the provisions of the Declaration of Safety with Risk Assessment, the Fire Safety Order, safety data sheets, as well as oral and written instructions for work.

2 Definitions

The terms used in the Rules have the following meanings:

2.1 **Hazardous work in the laboratory** involves 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 factors 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 ionizing radiation;
- work involving working equipment with unprotected moving parts;
- work at an elevated position.

2.2 **Hazardous chemicals** are substances and mixtures, which have at least one dangerous property: they are a physico-chemical, health, or environmental hazard.

2.3 **The head of the laboratory** is the chair of department, the head of the infrastructure centre or the head of the research group. The head of the laboratory is appointed by the dean.

2.4 **The laboratory supervisor** is a full-time university professor, assistant or a trained expert employed by the UL FKKT. The laboratory supervisor is appointed by the head of the laboratory.

2.5 **Hazardous waste** is defined as waste containing hazardous substances and is classified into one of the waste categories, as defined in the classification list of hazardous waste.

2.6 **An incident** is defined as any event resulting in occupational injury, illness, fire and/or explosion, the unintended release of chemicals, faulty work equipment, material damage or an environmental hazard.

3 General provisions

3.1 The Laboratory Safety Rules must be visibly displayed in each laboratory.

3.2 In the laboratory, work must be organized in such a way as to minimize the risk of an incident.

3.3 The Faculty management, the head of the laboratory, the laboratory supervisor, the Health and Safety Department, the Maintenance Department and users are responsible for providing a safe laboratory environment. However, the responsibility for safety at work lies first and foremost with the individual.

3.4 At least two people must be present whenever hazardous work is being done in the laboratory. Hazardous work may be undertaken in the presence of an individual familiar with the hazards, safety measures, and procedures in the event of an incident.

3.5 The working hours of laboratories are:
Monday to Friday from 7 a.m. to 8 p.m. and Saturday from 8 a.m. to 12 p.m.

3.6 Work outside these hours is only permitted with a written permission from the head of the laboratory. The permission may only be issued to full-time or part-time employees at the UL FKKT. Contractors, who perform laboratory work at the UL FKKT, are issued a permission according to the conditions stipulated in the contract.

3.7 When performing an experiment and/or using equipment, which present an increased risk, outside regular working hours, the user must report the operation as described in the Notification on Using Equipment/Performing an Experiment with Increased Risk Outside Working Hours.

3.8 Using damaged devices and inventory is not permitted. Any faulty equipment or flaws must be immediately reported to the laboratory supervisor.

3.9 Food and beverages are not allowed in the laboratory.

3.10 According to regulations, access to exits and electrical switches must be unhindered.

3.11 A risk assessment is prepared for each laboratory according to the Laboratory Safety Check List. Every employee is required to get acquainted with the risk assessment before using the laboratory. The head of the laboratory, in cooperation with the Health and Safety Department, reviews and updates the risk assessment in the event of circumstances, which may affect the safety risk and health of laboratory users.

3.12 Female students and employees, who are either pregnant, have recently given birth or are breastfeeding and are working in the laboratory, must undergo risk assessment, which is prepared according to the Declaration of Safety with Risk Assessment appendix.

3.13 The use of mobile phones and other multimedia devices in the laboratory is forbidden, except in the case of incidents or in connection with laboratory work. The devices may also be used by personnel employed in the laboratory.

3.14 Long hair must be tied.

3.15 When cleaning the laboratory, it is necessary to follow the Safety Instructions for Cleaning Laboratories, which is part of the Declaration of Safety with Risk Assessment.

3.16 When finishing work in the laboratory, carefully wash your hands. Wash all other parts of the body, which were exposed to hazardous chemicals, as needed.

4 Personal Protective Equipment

4.1 When working in laboratories, users must wear a coat and glasses with sufficient side shields at all times, unless otherwise stated in the risk assessment for the particular laboratory.

4.2 Depending on the type of work, the user must use the personal protective equipment required by manufacturers, safety data sheets, work instructions, and generally recognized rules, standards, and regulations in Slovenia.

4.3 The coats used in the laboratory are not allowed in libraries, lecture halls, meeting rooms or snack bars; they are likewise not allowed to be worn outside Faculty premises.

4.4 The footwear must protect the entire foot and must allow sure and safe walking. Users are not allowed to wear slippers, sandals, and high heels.

5 Handling chemicals

5.1 Safety data sheets for all commercially-available hazardous chemicals are accessible on the Intranet or the internet.

5.2 Before using the hazardous substances, the user must be acquainted with protective measures and measures in case of danger.

5.3 Only minimally required quantities of chemicals may be stored in the laboratory. A record of chemicals must be kept for each laboratory; this record is periodically updated by the laboratory supervisor. The largest single packaging may not exceed 2.5 L.

5.4 Chemicals must be kept in designated cabinets; when storing chemicals, their incompatibility must also be considered. Flammable, corrosive, and toxic chemicals must be stored in safety storage cabinets. The quantity of chemicals in the laboratory must not exceed the capacity of storage cabinets.

5.5 Hazardous chemicals must not be stored on benchtops, open shelves, or in the fume hood.

5.6 Chemicals must not be stored in food containers.

5.7 Packaging containing a non-commercial chemical or sample must be suitably marked to allow the identification (substance, concentration, user).

5.8 Carcinogens, mutagens, and acutely toxic substances, as well as substances toxic for reproduction, must be kept under key or otherwise protected, allowing access only to qualified personnel. When conducting an experiment, the user is allowed to take only the required amount of such a substance. A record of use must also be kept (substance, quantity, date, user).

5.9 All work involving carcinogens or mutagens must be conducted in the fume hood.

5.10 Work, which may involve the release of dangerous substances in the form of gases, fumes, aerosol or dust, must be conducted in the fume hood or under an exhaust hood.

5.11 Chemicals must be poured in such a way as to prevent spillage. In the event of spillage, the appropriate absorption materials must be used.

5.12 Chemicals may only be transported in closed packaging and using a basket or trolley.

5.13 Mouth pipetting is prohibited. When pipetting, appropriate technical accessories must be used.

5.14 The purchase and use of an explosive substance or an open-source of ionizing radiation are only allowed after receiving a permit from the competent ministry.

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 included in the registry at the ministry.

6 Work 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 technical gases) is in charge of the technical gas cylinders.

6.3 Gases, which are kept in smaller cylinders (lecture bottles), may only be used in fume hoods; after use, they must be returned to the gas storage room.

6.4 Before using liquid nitrogen, the user must be acquainted with protective measures and measures in case of danger.

7 Waste

7.1 Hazardous waste and glassware are separated according to type and disposed in assigned containers.

7.2 Hazardous chemicals must never be poured down the drain or dumped into municipal waste containers.

7.3 Hazardous waste must be handed over to the storekeeper in charge of chemicals and technical gases.

8 In case of emergency

8.1 Before acting in case of an emergency, we must first be sure that our actions will not endanger our own safety and that of other users.

8.2 Injured individuals must immediately be given first aid. First aid kits are located in student laboratories and in kitchenettes. The first aid kits contain a list of people qualified to give first aid and their telephone numbers.

8.3 In the event of a major incident, which requires the help of the Maintenance Department, you must first contact the reception desk by calling the internal telephone number **8000**.

8.4 Small initial fires must be extinguished using fire extinguishing equipment and people in danger must be evacuated. The location of all fire extinguishing equipment is marked on the evacuation plan. In the event you are unable to successfully extinguish the fire, please call the internal telephone number **8000**.

8.5 In the event you hear the technical gas alarm, please leave the premises immediately and inform the reception desk by calling **8000**.

8.6 In the event of chemical spillage, please use the absorption materials and follow the measures specified in the safety data sheet.

8.7 In the event of any incident, please notify the head of the laboratory or one of the people in charge (indicated on the notice near the laboratory exit).

The Laboratory Safety Rules become valid once adopted by the Faculty Senate. It is published on the UL FKKT Intranet; it is also visibly displayed in each laboratory.

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