

# Measure of the Director of the Central European Institute of Technology of Masaryk University No. 4/2021

# Risk Prevention and Management in the Field of Occupational Safety and Health

(effective as of 15. 6. 2021)

Pursuant Art. 7 (4) g) of the Rules of Organisation of the Central European Institute of Technology of Masaryk University and pursuant to the provisions of Sections 101, 102, 103 and 108 of Act No. 262/2006 Coll., the Labour Code, as amended (hereinafter the "Labour Code"); and pursuant to the Rector's Directive No. 10/2009 Organization of occupational health and safety at MU, I hereby issue this Measure:

#### Article 1

## **Subject Matter**

- (1) This measure of the Director of CEITEC MU (hereinafter the "Measure") is adopted in order to identify and prevent risks in the field of occupational safety and health in all safety categories and at all worksites within the Central European Institute of Technology of MU (hereinafter "CEITEC MU").
- (2) CEITEC MU is an independent university institute that was established at Masaryk University as a part of the scientific centre CEITEC - Central European Institute of Technology. CEITEC MU forms a key part of the research infrastructure developed at the University Campus Brno-Bohunice and provides state-of-the-art equipment and optimum conditions for basic, as well as applied research, in particular in the field of life sciences.

#### Article 2

#### **Definitions**

- (1) Risk combinations of probability and scope of possible injuries or damage to the health of an employee exposed to one or more potential sources of work injuries or health hazards in the course of their work process. Risks include all sources of injuries, industrial hazardous substances, excessive heat or cold, radiation, electrical energy, etc.
- (2) Risk prevention all provisions or measures adopted or introduced or planned to be adopted or introduced at all levels of activities of an institute in order to prevent or mitigate risks.
- (3) Risk assessment and management a process aimed at risk optimisation. The first part of this process that deals with the identification, assessment and benchmarking of risks provides background information for the second part of the process that focuses on adopting the measures for reducing the risks to the minimum level. If the risks cannot be eliminated, the employer is obliged to assess the risks and adopt

measures for their mitigation so that the hazards for the safety and health of the employees are reduced to the minimum.

#### Article 3

Risks Identification and Assessment Policy in the Field of Occupational Safety and Health

- (1) Risks identification and assessment constitutes an integral part of safeguarding in the field of occupational safety and health within the scope of the developed management system. For this reason, it is absolutely necessary to perform and update this policy on a regular basis, at least once a year.
- (2) All managing employees are obliged to timely inform in writing a person professionally competent in the area of risk prevention of any facts associated with the need to supplement or review the existing situation in relation to risks.
- (3) Supplementation and review of risks, including the determination of the level of their seriousness, is performed in particular in the following cases:
  - a) substantial changes or technologies, changes of inputs or outputs;
  - b) changes of legal regulations, technical standards, technical and management documents;
  - c) based on findings of audits and all types of inspections and reviews;
  - d) based on the result of the review of the occupational safety and health system by the management.
- (4) Specific identified risks/hazards and measures for their elimination are set out in Annex No. 1 Identification of hazards and measures for their elimination that constitutes an integral part of this Measure.

### Article 4

#### **Final Provisions**

- (1) Managing employees of CEITEC MU are obliged to acquaint all their subordinates with this Measure.
- (2) The secretary of the Institute shall be responsible for the interpretation of this Measure.
- (3) The Occupational Health and Safety and Fire Prevention manager shall be responsible for keeping this Measure updated.
- (4) The Occupational Health and Safety and Fire Prevention manager is appointed to supervise the observance of this Measure.
- (5) This Measure cancels the Director's Measure No. 9/2016 Risk Prevention and Management in the Field of Occupational Safety and Health.
- (6) This Measure shall become valid as of the execution date hereof.
- (7) This Measure shall become effective as of 15. 6. 2021.

Annexes: No. 1 – Identification of hazards and measures for their elimination.

In Brno, on 8. 6. 2021

Jiří Nantl Director of the Institute

Hazard Who is endangered by what	Hazard reduction measures
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## Annex No. 1: IDENTIFICATION OF HAZARDS AND MEASURES FOR THEIR ELIMINATION

# **OFFICE WORK**

Damage to health  Damage to health	Employees working in offices are endangered by the long-term exposure to unsuitable ergonomic conditions at the workplace.  Employees working at display units are at risk of  - vision impairment due to the long-term strain under unfavourable optical conditions;  - neck and back muscle pain.	their work desks, suitable chairs, sufficient work area, etc.
Damage to health due to poor light at the workplace	Employees working in offices are endangered by the long-term exposure to unsuitable ergonomic conditions at the workplace.	applicable legislature, and in compliance with the ergonomic and hygien

Hazard	Who is endangered by what	Hazard reduction measures
Being struck by electrical current	Employees working or being present in buildings at risk of being struck by electrical current as a result of contact with live parts of the electrical device due to - unprofessional handling of electrical devices; - poor technical condition of electrical devices; - carrying out of prohibited handling of electrical devices;	<ul> <li>Ensure that works on electrical devices be only carried out by employees with adequate electrical engineering qualification.</li> <li>Inspect on a continuous basis the technical condition of electrical devices, perform regular reviews of electrical installations and remove any identified defects.</li> <li>Avoid prohibited handling of electrical devices.</li> <li>Use only approved and undamaged electrical devices, the responsible persons are specified in the internal guidelines.</li> <li>Avoid placing of electrical cables at places where they could be damaged; immediately replace any damaged cables.</li> </ul>
Incorrect manipulation , unprofessional repairs of devices	Employees working in offices are at risk of injuries occurring in contact with mechanical parts of devices due to their incorrect manipulation or unprofessional repairs.	Manipulation and repairs to be carried out only in accordance with the manufacturer's instructions.
Stabbing, cutting	Employees using various office supplies for their work are most frequently at risk of minor stab and cut injuries.	<ul> <li>Pay special attention in the course of work with office supplies, such as stapler, knife, razor blade, drawing tools or stationery, etc.</li> </ul>
Scalding	Employees preparing hot drinks, warm food, etc. are at risk of scalding by hot liquids.	<ul> <li>Pay special attention when handling hot liquids (e.g. when pouring hot water out of electric kettles, etc.).</li> <li>Prevent overfilling dishes with hot water.</li> </ul>

# MONITORS, DISPLAY UNITS

Vision damage	Employees working with display units - monitors are at risk of vision impairment due to the long-term strain under unfavourable conditions.	•	Place the display unit - monitor so that windows in the room, as the source of light, are not positioned behind the monitor or opposite to the monitor.  Install adjustable sun blinds or curtains on the windows in the room.  Adjust the monitor lighting so that the computer screen does not reflect any undesirable light.  Place the monitor (screen), depending on its size, at the distance of approximately 60 cm from the eyes.
Neck and back muscle pain.	Employees working with display units - monitors are at risk of neck and back muscle pain due to the long-term strain under unfavourable conditions.	•	Place the monitor (screen) so that its centre is situated at the eye level. Equip the workplace with swivel, height-adjustable chairs with a tilt lock.

Hazard	Who is endangered by what	Hazard reduction measures
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# **SHREDDER**

Failure to respect the issued bans	Employees working in offices are at risk of injury due to the use of shredders for unpermitted purposes, overloading the devices above the levels set out by their manufacturers, or a failure to follow the manufacturer's instructions for the use of such devices.	•	Avoid using the device for any other purpose than intended.  Avoid overloading the device above the levels set out by the manufacturer.  Follow the manufacturer's instructions for use of the device.
Failure to carry out prescribed inspections and reviews or timely repairs	Employees working in offices are endangered by a hazardous condition of a shredder or by the use of a damaged device.	•	Perform inspections of the electrical installations and parts of the electrical device on a continuous basis and ensure removal of any identified defects.  Ensure timely performance of reviews of electrical installations and devices.  Not to allow the devices to be repaired, inspected or reviewed by an employee without adequate electrical engineering qualification.
Removed protective guards or covers	Employees working in offices are endangered by a direct contact with rotating or otherwise moving parts of the device.	•	Not to remove any protective guards or covers of the device.
Being pulled into the shredder	Employees working in offices equipped with a shredder are endangered by the rotating parts of the device due to: - flyaway clothes or accessories getting caught in the device; - jewellery and other items getting caught in the device; - long hair getting caught in the device.		When operating a shredder, wear clothes and accessories without any flyaway elements, e.g. necktie, scarf, jewellery, necklaces, etc.  When operating a shredder, avoid loose hairstyles to prevent hair getting caught in the device.  Not to bend over the running shredder if the attendance staff has any flyaway clothes or loose long hair.
Being struck by electrical current	Office employees working or being present in buildings at risk of being struck by electrical current as a result of contact with live parts of the electrical device due to - unprofessional handling of electrical devices;	•	Ensure that works on electrical devices be only carried out by employees with adequate electrical engineering qualification.  Inspect on a continuous basis the technical condition of electrical devices, perform regular reviews of electrical installations and remove any identified defects. Avoid prohibited handling of electrical devices.

Hazard	Who is endangered by what	Hazard reduction measures
	<ul><li>poor technical condition of electrical devices;</li><li>carrying out of prohibited handling of electrical devices;</li></ul>	appropriate sign, including the specification of the responsible person.

# WORK AND PRESENCE IN THE BUILDING AND IN THE OUTDOOR AREAS

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Stumbling, slipping, fall	Employees at risk of - stumbling as a consequence of untidiness; - uneven terrain; - defective conditions of the floor surface, thoroughfare, e.g. damaged floor cover, torn off rubber stair edge cover, etc.; - insufficient lighting of the workplace; - slipping on icy terrain, wet floor;	<ul> <li>Appoint employees responsible for tidiness of the workplace.</li> <li>Use the prescribed shoes at the workplace.</li> <li>Remove any obstacles from thoroughfares that could cause stumbling.</li> <li>Mark/label obstacles on thoroughfares,, which cannot be removed,, with safety colours.</li> <li>Covers of shafts, depressions, etc. must be at the same level as the surrounding floor or thoroughfare, secured against shifting.</li> <li>Replace any damaged floor parts with insufficient load bearing capacity (e.g. corroded grids, half-rotten boards, planks, beams).</li> </ul>
<ul> <li>fall during descending from the stairs;</li> <li>dazzlement by direct sunlight or by sunlight reflected from glossy</li> </ul>	<ul> <li>Ensure sufficient lighting of the workplace.</li> <li>In winter season, remove ice coating in a timely manner and sprinkle anti skid material.</li> <li>Keep the floors dry and clean, in particular in winter (prevention of snow being brought in), promptly remove any spilled liquids.</li> </ul>	
Falls from height	Employees working in the height are at risk of fall due to missing enclosure or railings at the edge of the workplace or thoroughfare.	<ul> <li>Safeguard open edges of the workplaces, thoroughfares, openings, etc. by means of railings or enclosures.</li> </ul>
Fall of materials, loads, items	Employees are endangered by a fall of the interior equipment of buildings.	<ul> <li>Ensure that the interior equipment of buildings be stable, without the hazard of its fall.</li> <li>Promptly repair any damaged furniture feet or support posts.</li> <li>Avoid sitting on the edge of desks and chairs.</li> <li>Avoid stepping on chairs, in particular rolling chairs.</li> </ul>
Hitting an obstacle	Employees handling materials and loads are at risk of hitting - permanent or temporary obstacles at an unsuitable place;	<ul> <li>Keep thoroughfares free and without obstacles at all times.</li> <li>Keep the minimum prescribed width of thoroughfares.</li> <li>Ensure sufficiently wide and high passages.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
	<ul> <li>obstacles at the points of sudden narrowing or lowering of thoroughfares;</li> <li>unsuitably arranged interior furnishings of the building;</li> <li>sharp edges and corners of the furniture and equipment in the office and warehouse rooms.</li> <li>as a consequence of insufficient lighting.</li> </ul>	<ul> <li>Mark/label permanent obstacles, narrowed and lowered places, with appropriate safety signs.</li> <li>Store material and items in a well-arranged manner at the designated places.</li> <li>Avoid storing materials and items at places where it is difficult to handle such materials and items due to insufficient space.</li> <li>Ensure that the equipment and interior furnishings of the building do not restrict employees in their usual movement around the workplace.</li> <li>Ensure sufficient lighting of the thoroughfares and workplaces.</li> <li>Mark/label communication, handling and storage areas in the halls.</li> </ul>
Being captured by a load, device	Employees at risk of being hit by gates or doors.	<ul> <li>Secure swing gates in the open position against spontaneous closing.</li> <li>Secure sliding gates against rolling off the groove.</li> <li>Equip non-transparent pendulum doors with a sight glass.</li> </ul>
Being captured by a load, device	Employees are at risk of injuries resulting from works or movement within a limited workspace.	<ul> <li>Ensure safe access to the window control elements.</li> <li>Ensure safe access to the workplace.</li> <li>Pay special attention in the course of work within a limited space.</li> </ul>
Cutting, jabbing	Employees at risk of cutting, jabbing due to - hazardous condition of the working environment; - work conditions.	<ul> <li>Replace broken glass filling panels.</li> <li>Repair all places with a risk of jabbing (e.g. by a wire fencing, etc.).</li> <li>Remove all shattered glass from the floor or from thoroughfares immediately after its finding.</li> <li>Remove all protruding wires and nails from packaging and from the workplace.</li> </ul>
Burning	Employees working or being present in buildings are at risk of burning in contact with hot surface of devices.	<ul> <li>Ensure that hot surfaces of devices in the building be equipped with protective covers or guards protecting employees against burning.</li> <li>As necessary, mark hazardous places, where employees are at risk of burning, with appropriate warning signs.</li> </ul>
Injuries in the elevator	Employees using elevators at risk of  - insufficient protection against being clinched by the elevator hoistway door;  - insufficient protection against fall into the elevator shaft;  - elevator accidents in the case of failure or breakdown of the mechanical parts ensuring its safe operation;	<ul> <li>Perform inspections of the technical condition of the elevator on a continuous basis, remove any identified defects.</li> <li>Perform prescribed reviews and inspections of the elevator in a timely manner and within the required scope, remove any identified defects.</li> <li>Prevent access of unauthorised persons in the elevator machine room.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
Being struck by electrical current	<ul> <li>fall of the elevator cabin in the case of breakage of the ropes;</li> <li>unwanted handling of the control parts of the elevator by unauthorised persons.</li> <li>Employees working or being present in buildings at risk of being struck by electrical current as a result of contact with live parts of the electrical device due to</li> <li>unprofessional handling of electrical devices;</li> <li>poor technical condition of electrical devices;</li> <li>carrying out of prohibited handling of electrical devices;</li> </ul>	<ul> <li>Ensure that works on electrical devices be only carried out by employees with adequate electrical engineering qualification.</li> <li>Inspect on a continuous basis the technical condition of electrical devices, perform regular reviews of electrical installations and remove any identified defects.</li> <li>Avoid prohibited handling of electrical devices.</li> <li>Use only approved and undamaged electrical devices, mark the approval with an appropriate sign, including the specification of the responsible person.</li> <li>Avoid placing of electrical cables at places where they could be damaged; immediately replace any damaged cables.</li> </ul>
Fire	Employees present at the site of fire are at risk of being deprived from the possibility of escape from the endangered area and at risk of burns caused by fire.	<ul> <li>Inspect on a continuous basis that escape routes are free of any obstacles, ensure removal of any identified defects.</li> <li>Keep escape routes from the building free at all times, not to block them with any materials or items.</li> <li>Hold fire risk and fire prevention training.</li> <li>Post emergency numbers at the worksites.</li> <li>Equip buildings with the prescribed number and type of fire extinguishers.</li> <li>Ensure inspections of fire extinguishers by an expert company once a year.</li> </ul>

# **STRES AND MENTAL HEALTH**

Mental, physical, behavioural and emotional issues	<ul> <li>Employees, due to unclear work role</li> <li>Employees, due to too many / too few work duties and requirements</li> <li>Employees, due to difficult work relations</li> <li>Employees, due to unhealthy work environment</li> </ul>	Change your office, ask your employer to provide some help with solving the difficult work relations.
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# **BUSINESS TRIPS**

Hazard

Damage to the health due to a traffic accident	Employees on the business trip travelling in their private car due to  - Poor technical condition of the car - Lack of sleep and rest - Lack of knowledge of the traffic and other regulations - Limited view of the driver - Limited control over the car	<ul> <li>Keep the car in good technical condition.</li> <li>Check the technical condition of the car according to the required terms; any malfunctions and defects must be fixed immediately.</li> <li>Check the car prior each drive.</li> <li>Do not use defective car.</li> <li>Take part at the "training for drivers" and fulfil all conditions specified by the training.</li> <li>Follow the periods and safety breaks during driving.</li> <li>Drive the car only if you are in good mental and physical condition.</li> <li>Follow all provisions of the road and traffic regulations.</li> <li>Avoid using any alcoholic drinks or other narcotics prior/during driving.</li> <li>Pay your full attention to driving, do not let other activities to distract you.</li> </ul>
Damage to the health during the business trip	Employees on the business trip using public transport due to	<ul> <li>Follow the provisions of the road and traffic regulations.</li> <li>Focus on the journey, do not let other activities (e.g. headphones, mobile phone, etc.) to distract you.</li> <li>Follow the employer's instructions.</li> </ul>

# **HANDLING OF MATERIALS AND LOADS**

Fall of materials, loads, items	Employees carrying out manual handling of load are at risk of dropping the load due to  its weight exceeding the prescribed limit;  its unsuitable shape;  failure to use suitable tools for holding the load;  incompact nature of the load.	a sa a construction in a give in the date.
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Hazard	Who is endangered by what	Hazard reduction measures
Fall of materials, loads, items	Employees are at risk of injury due to being present at an unprotected place of the fall of loads.	<ul> <li>Safeguard open edges of the workplaces in the height by means of a protective rail preventing fall of materials and loads.</li> <li>Safeguard the places where the fall of materials or loads threatens.</li> <li>Avoid standing under suspended loads.</li> <li>When opening the sidewalls or the back side of vehicles, make sure that no employee can be hit by these parts of by any released material.</li> </ul>
Fall of materials, loads, items	Employees are endangered by a fall of loads due to their incorrect placement.	<ul> <li>Place loads so as to ensure their stability and prevent their fall.</li> <li>If possible, place objects on their largest bearing surface area.</li> <li>Place objects, in particular round logs, only on a level surface.</li> <li>Keep free access for persons and vehicles to the shelves so as not to prevent placement of materials and items on the shelves and their withdrawal therefrom.</li> </ul>
Fall of materials, loads, items	Employees are endangered by a fall of loads due to their insufficient securing in the course of transport.	Loads transported on manual trolleys to be secured against sliding and fall.
Being captured by a load, device	Employees handling loads, in particular in the course of loading and unloading, are at risk of smashed fingers.	<ul> <li>Items that are in tight contact with each other to be placed on base structures.</li> <li>In the course of manual handling of heavier objects, use suitable tools - tongs, tumpline straps, etc.</li> </ul>
Being captured by a load, device	Employees present in the vicinity of moving parts of devices are endangered by their insufficient protection.	Cover moving parts of devices with protective guards and covers.
Cutting, jabbing	Employees are at risk of cutting, jabbing caused by the handled loads.	<ul> <li>Remove all protruding wires and nails from the handled loads, from the packaging and from the workplace.</li> <li>Avoid handling of loads with damaged packaging.</li> </ul>
Failure to use personal protective equipment at the workplace	Employees working without prescribed personal protective equipment at the workplace are at risk of injuries caused by materials, loads or the work environment.	<ul> <li>Equip employees with prescribed personal protective equipment at the workplace in a demonstrable manner, i.e. against signature.</li> <li>Acquaint employees with the use of personal protective equipment at the workplace.</li> <li>Use the assigned personal protective equipment at the workplace.</li> </ul>
Damage to health	Employees handling materials and loads are at risk of - injuries of the spine, hip joints, knees and other joints, hernia, muscle ruptures, etc.; - long-term exposure to unfavourable weather conditions.	<ul> <li>Observe permitted weight limits of loads.</li> <li>Use suitable handling tools, carts.</li> <li>Provide employees with personal protective equipment against cold and rain.</li> <li>Provide employees with warm and cold beverages.</li> <li>Allow employees to take breaks during work, in winter in a heated room.</li> </ul>

Haza	Who is endangered by what	Hazard reduction measures
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# **STORAGE**

Fall of materials	Employees handling materials are at risk of the fall of the stored material.	<ul> <li>Make sure that materials be stored in a manner preventing their fall or collapsing.</li> <li>Store material and items in a well-arranged manner at the designated places.</li> <li>Avoid storing materials at places where it is difficult to handle such materials due to insufficient space.</li> <li>Avoid throwing long and flexible objects from the height to the ground.</li> <li>If possible, place objects on their largest even surface area.</li> <li>Determine and observe the pile height for each pile.</li> <li>Pile up materials so that the piles are stable.</li> <li>Do not lean any objects against the piles.</li> <li>Secure / safely take apart a pile if there is a risk of its collapsing or sliding.</li> <li>Avoid removing materials stored in a pile from the bottom or from the sides of the pile.</li> </ul>
Missing notification of a threatening hazard	Employees in the warehouse are endangered by the lack of information on threatening operation hazards.	<ul> <li>Place appropriate warning and safety signs at the entrance to the warehouse.</li> <li>Perform training of the relevant employees with respect to operation hazards in the warehouse</li> </ul>
Fall, collapse of shelves, furniture, objects	Employees working or being present in the warehouse are at risk of injuries due to fall of the internal equipment of the warehouse.	<ul> <li>After each relocation or restructuring of the shelves, inspect whether the shelves comply with the relevant documentation in terms of their rigidity and stability.</li> <li>Mark the shelves with the data on the load bearing capacity of individual shelf units and on the number of units in each column or the load bearing capacity of each column.</li> <li>Do not overload the shelves above the load bearing capacity set out by the manufacturer.</li> <li>Place loads on the shelf units evenly, heavier loads in the bottom and lighter loads on the top.</li> <li>Do not climb on or step onto or into the shelves.</li> <li>Keep the minimum prescribed width of alleys between the warehouse shelves.</li> <li>Carry out inspections of the shelves at least once a year, confirmed by an inspection record.</li> </ul>
Being caught by a load	Employees are at risk of injuries resulting from works within a limited work space.	Ensure safe access to the stored material.

Hazard	Who is endangered by what	Hazard reduction measures
Fire	Employees present at the site of fire are at risk of being deprived from the possibility of escape from the endangered area and at risk of burns caused by fire.	removal of any identified defects.

# **ELECTRICAL EQUIPMENT**

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Electrical equipment - electrical injuries	injuries caused by the employees being struck by electrical current in the course of common activities, usually through a contact on uncovered or otherwise unprotected live parts of electrical devices, e.g. in the course of operation and activities performed on electrical devices by adequately informed and trained employees, being paralysed upon passage of electrical current through the injured person's body and subsequent fall from the height, etc.;	•	Exclude activities during which the employee working in the vicinity of electrical devices could get in contact with live parts under voltage.  Avoid unprofessional interventions in electrical installations.  Maintain temporary electrical devices in safe condition - initial reviews, regular reviews, regular professional supervision by an authorised electrician (inspections, removal of defects).  Do not approach electrical devices, do not switch off their protection position, observe the bans or conditions of work in the vicinity of electrical devices and wiring.  Switch off electrical devices at the construction site at the end of the work hours (fire hazard) and observe the operation conditions of permanently running heating units and electrical heating sources.
Electrical equipment - electrical injuries	contact of persons with live parts, i.e. direct contact with parts under voltage or with parts that have become live as a consequence of incorrect conditions, in particular due to: - damaged insulation (indirect contact), imperfect protection against electrical injuries by non-live parts (e.g. zeroing, grounding); - inadequate level of protection against contact (accidental, non-intentional, spontaneous) prescribed by applicable	•	Observing the ban to remove safety guards and covers, open access routes to the electrical parts, switch off protective covers and closures.  Respecting safety notices.  Exclude activities during which the employee working in the vicinity of electrical devices could get in contact with live parts under voltage.  Professional connection and repairs of power cords and extension power cords, verification of the correctness of connection, use of adequate cords and cables with a protective conductor (always performed by an electrician - knowledgeable employee with higher qualification).

Hazard	Who is endangered by what		Hazard reduction measures
	regulations; - defective functions of the electrical gear (tools), missing circuit breakers of the electrical gear (tools), e.g. parts of electrical devices, work machinery, etc.; - unprotected live parts, e.g. in an open switchboard, damaged parts of the electrical installation, dismounted covers, etc.; - accessible live parts of electrical devices as a result of mechanical damage, for example of the switchboard, etc.;	•	Enlighten connections from tension, connect extension cords with a protective conductor, the protective conductor must be longer so that it is interrupted as the last one in the case of extraction.  Avoid unprofessional interventions in electrical installations.  Maintain temporary electrical devices in safe condition - initial reviews, regular reviews, regular professional supervision by an authorised electrician (inspections, removal of defects).  Observe the ban of winding electrical cables around metal structures, railing objects, scaffoldings, etc. at the workplace.  Careful handling of electrical cables by employees in the course of handling electrical devices, their plugging and unplugging, etc., careful handling of cables and power cords.  Before relocating an electrical device connected by a power cord, safely unplug the device from the socket (does not apply to appliances constructed and customised for this particular purpose).  Avoid using extension power cords, use them only in the necessary length.  Avoid using extension power cords with plugs on both ends.  Before using an electrical device or appliance, verify its proper condition (proper inspection).  Do not approach electrical devices, do not switch off their protection position, observe the bans or conditions of work in the vicinity of electrical devices and wiring.
Electrical equipment - electrical injuries	contact of external conductive objects (hoses, pipes, metal structures) with electrical conductors in the course of handling, in the course of erecting and relocation of bar objects (scaffoldings), simple ladders, extracting ladders in the vicinity of outdoor electrical wiring;	•	Do not approach electrical devices, do not switch off their protection position, observe the bans or conditions of work in the vicinity of electrical devices and wiring.  Observe the bans of activities within protective zones of outdoor electrical wiring of high and extremely high voltage.
Electrical equipment - electrical injuries	accidental contact with live or non-live parts of the electrical devices;	•	Exclude activities during which the employee working in the vicinity of electrical devices could get in contact with live parts under voltage.  Adopt measures for the protection against electrical injuries caused by non-live parts (contact of employees with non-live parts that are under voltage in the event of a breakdown - voltage on the conductive skeleton of the machinery or device).  Avoid unprofessional interventions in electrical installations.

Hazard	Who is endangered by what	Hazard reduction measures
Electrical equipment - electrical injuries	mistaking of the phase and protective conductor in the case of unprofessional connection of the power supply cord; failure to verify correctness of the connection, unprofessional repair of the power cord, use of an extension cord without a protective conductor or with an interrupted protective conductor and in the case of a failure to respect the colour labelling of conductors;	<ul> <li>Maintain temporary electrical devices in safe condition - initial reviews, regular reviews, regular professional supervision by an authorised electrician (inspections, removal of defects).</li> <li>Before using an electrical device or appliance, verify its proper condition (proper inspection).</li> <li>Do not approach electrical devices, do not switch off their protection position, observe the bans or conditions of work in the vicinity of electrical devices and wiring.</li> <li>Professional connection and repairs of power cords and extension power cords, verification of the correctness of connection, use of adequate cords and cables with a protective conductor (always performed by an electrician at least pursuant to Section 6 of Decree No. 50/1978 Coll., i.e. knowledgeable employee with higher qualification).</li> <li>Respecting colour labelling of conductors.</li> <li>Avoid unprofessional interventions in electrical installations.</li> <li>Maintenance of power cables and power cords (e.g. protection against mechanical damage at construction sites, extraction from clamps. etc.) - regular inspections of temporary electrical devices.</li> <li>Maintenance of temporary electrical devices in safe condition - initial reviews, regular reviews, regular professional supervision by an authorised electrician (inspections, removal of defects).</li> <li>Avoid using extension power cords, use them only in the necessary length; avoid using extension power cords with plugs on both ends.</li> </ul>
Electrical equipment - electrical injuries	power cord extraction due to indelicate, unwanted or prohibited handling by employees;	<ul> <li>Enlighten connections from tension, connect extension cords with a protective conductor, the protective conductor must be longer so that it is interrupted as the last one in the case of extraction.</li> <li>Careful handling of cables and power cords.</li> <li>Maintenance of power cables and power cords (e.g. protection against mechanical damage at construction sites, extraction from clamps. etc.)</li> <li>Regular inspections of temporary electrical installations.</li> <li>Careful handling of electrical cables by employees in the course of handling</li> </ul>
Electrical equipment -	damaging the insulation of power cords (wearing through, cutting and other mechanical damage of the insulation	electrical devices, their plugging and unplugging, etc.  • Careful handling of cables and power cords.

Hazard	Who is endangered by what	Hazard reduction measures
electrical injuries	revealing the bare conductor) resulting in the risk of mechanical damage (incorrect placement or incorrect use);	<ul> <li>Observe the prohibition of leading electrical supply cables on thoroughfares and at places where such cables could be damaged by construction and other devices.</li> <li>Maintain power cables and power cords (e.g. protection against mechanical damage at construction sites, extraction from clamps. etc.) - regular inspections of temporary electrical devices.</li> <li>Maintain temporary electrical devices in safe condition - initial reviews, regular reviews, regular professional supervision by an authorised electrician (inspections, removal of defects).</li> <li>Observe the ban of winding electrical cables around metal structures, railing objects, scaffoldings, etc. at the workplace.</li> <li>Careful handling of electrical cables by employees in the course of handling electrical devices, their plugging and unplugging, etc.</li> </ul>
Electrical equipment - electrical injuries	damage or breakage of the insulation of conductors and power cord cables;	<ul> <li>Special measures to protect electrical wiring and safety of persons depending on the nature of their work activities.</li> <li>Maintenance of temporary electrical devices in safe condition - initial reviews, regular reviews.</li> <li>Regular professional reviews by an authorised electrician (inspections, removal of defects).</li> <li>Protection against hazardous contact or approach to the live parts of the electrical device, against hazardous contact voltage on non-live parts, against the occurrence of hazardous contact voltage, against harmful effects of the electrical arc, against unwanted intrusion of external objects, water, humidity, gases, dusts or vapours into electrical devices, in particular at places with combustible dusts.</li> </ul>
Electrical equipment - electrical injuries	impossibility of quick switch off of electrical power in the event of danger; non-accessible main switch of temporary electrical installations; unsuitable placement of the main switch;	

Hazard	Who is endangered by what	Hazard reduction measures
Electrical equipment - electrical injuries	unwanted approach of persons to the conductors of outdoor electrical wiring (including in the course of handling mechanisms and other devices in the vicinity of electrical devices);	of high and extremely high voltage.  • Perform works in the vicinity of electrical devices only in co-operation with

# **CLEANING WORKS**

Clipping	Employees carrying out cleaning works	
Slipping	Employees carrying out cleaning works are at risk of slipping on the floor or	Follow the prescribed procedure and methods of cleaning.
	staircase due to excessively slippery	<ul> <li>When cleaning floors, staircases and other frequently used thoroughfares, immediately wipe the floor dry.</li> </ul>
	surface resulting from their own work.	<ul> <li>If possible, clean thoroughfares after all persons have left the building.</li> </ul>
		<ul> <li>Use suitable work shoes, recommended anti-slippery sole (fine profile soles have better anti-slippery properties than rough profile soles) or shoes with softer soles.</li> </ul>
Slipping	Persons present in the area where cleaning works are being carried out -	<ul> <li>When cleaning floors, staircases and other frequently used thoroughfares, immediately wipe the floor dry.</li> </ul>
	floor wiping - are at risk of slipping on	If possible, clean thoroughfares after all persons have left the building.
	wet floor due to insufficient information on the existing risk.	<ul> <li>After washing the floor, place the safety notice - sign "Warning - wet floor" at a visible place.</li> </ul>
Stumbling, slipping, falls during walking	slipping, falls during walking  - defective condition of floors and thoroughfares; - untidiness at the workplace;	<ul> <li>Inspect the condition of floors and thoroughfares at the workplace on a continuous basis, check whether the workplace is clean and tidy and ensure the removal of any identified defects.</li> </ul>
		<ul> <li>Covers of shafts, depressions, etc. must be at the same level as the surrounding floor or thoroughfare.</li> </ul>
	- insufficient lighting.	<ul> <li>Remove any obstacles from thoroughfares that could cause stumbling (e.g. covers, lids, cables, hoses, etc.).</li> </ul>
		<ul> <li>Mark/label obstacles on thoroughfares, which cannot be removed, with safety colours (yellow and black stripes).</li> </ul>
		Ensure sufficient lighting of the workplace.
Hitting an	Employees carrying out cleaning works	Keep thoroughfares free and without obstacles at all times.
obstacle	are at risk of hitting: - permanent or temporary obstacles at	Keep the minimum prescribed width of thoroughfares.
		Ensure sufficiently wide and high passages.
	an unsuitable place;	<ul> <li>Mark/label permanent obstacles, narrowed and lowered places, with appropriate safety signs.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
Works within a	<ul> <li>obstacles at the points of sudden narrowing or lowering of thoroughfares;</li> <li>unsuitably arranged interior furnishings of the building;</li> <li>as a consequence of insufficient lighting.</li> <li>Employees carrying out cleaning works</li> </ul>	<ul> <li>Ensure that the equipment and interior furnishings of the building do not restrict employees in their usual movement around the workplace.</li> <li>Ensure sufficient lighting of the thoroughfares and workplaces.</li> <li>Pay special attention in limited space in the course of handling materials and</li> </ul>
limited work space	are at risk of injuries resulting from works within a limited work space.	<ul> <li>items.</li> <li>Ensure safe access to the window control elements (during washing windows).</li> </ul>
Cutting, stabbing  Scalding, burning	Employees carrying out cleaning works are at risk of cutting and stubbing by the cutting edges and sharp blades and spikes of the equipment and work tools.  Employees carrying out cleaning works are at risk of scalding, burning, water, steam, contact with hot surface of devices.	<ul> <li>Validate and observe applicable work procedures and adjust them as needed.</li> <li>The handles of instruments and work tools (that are held in hands) must have a smooth and suitable shape, without any cracks, splinters and chips.</li> <li>Determine a place for keeping the tools and keep them at such place.</li> <li>Discard any cracked and damaged instruments and work tools.</li> <li>Validate and observe applicable work procedures and adjust them as needed.</li> <li>Pay special attention during works with hot water. The temperature bearable for the hand is approx. 55°C.</li> <li>Avoid filling vessels with hot water to the brim.</li> <li>When filling buckets and other vessels with warm water, open first the cold water</li> </ul>
		<ul> <li>tap and then add hot water until the mixture reaches the required temperature.</li> <li>Restrict carrying vessels with hot water.</li> <li>Clean hot objects and devices, e.g. oven, pipes, heating units, only after they have cooled.</li> </ul>
Propagation of microorganism s, infectious diseases	Employees carrying out cleaning works and other persons present in the building are at risk of infectious diseases due to a failure to perform cleaning.	<ul> <li>Determine cleaning schedule at the worksite.</li> <li>The floors in the changing rooms, bathrooms, showers and toilets, the washbasins and toilets must be washed on a daily basis.</li> <li>Washable parts of walls must be washed at least once a week.</li> <li>Furnishings in the sanitary and other facilities must be cleaned at least once every two weeks.</li> </ul>
Being affected by a chemical substance	Employees carrying out cleaning works are at risk of being affected by chemical substances, in particular:	<ul> <li>Use the assigned personal protective tools at the workplace, in particular rubber gloves, goggles or face shield (if prescribed in the safety data sheet pertaining to the relevant substance).</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
(cleaning agents, detergents and disinfection	<ul><li>inflammation, redness, etching or other forms of skin damage;</li><li>inhalation of fumes;</li><li>eye damage;</li></ul>	<ul> <li>When opening packaging containing chemical substances, use eye and face protection - goggles or face shield (prevention of chemical substance squirting in the face).</li> <li>Avoid storing chemical substances in food and beverage containers (due to the risk</li> </ul>
preparations)	<ul> <li>occurrence of secondary diseases or damage, e.g. breathing difficulties, tearing, etc.</li> </ul>	<ul> <li>of mistaking).</li> <li>Validate and observe applicable work procedures for handling chemical substances and adjust them as needed.</li> <li>Mark/label all containers with chemical substances in the prescribed manner.</li> </ul>
		<ul> <li>Dispose of chemical substances and chemical waste only in accordance with the prescribed procedure.</li> <li>When working with substances capable of endangering human health, avoid direct contact of employees with these substances.</li> <li>Keep toxic substances so as to prevent their misuse; they must be stored locked</li> </ul>
		<ul> <li>and records must be kept of their stock.</li> <li>Comply with the principles specified in the use manual.</li> <li>Observe the instructions set out in the safety data sheets.</li> <li>Observe basic hygiene principles.</li> </ul>
- H 6		<ul><li>Avoid eating, drinking and smoking during the work with chemical substances.</li><li>Wash hands thoroughly after work.</li></ul>
Fall of a person from the height during washing windows, cleaning	Employees carrying out cleaning works are at risk of fall from the height during cleaning windows or ceiling lights	<ul> <li>When washing window, use personal safeguards against fall.</li> <li>Determine suitable anchoring points for the use of personal safeguard tools (safety harness).</li> <li>Determine correct work procedures based on the construction design of the windows, determine auxiliary structures to level up the workplace.</li> <li>Ensure safe access to the workplaces in the height (ceiling lights in the height, etc.), use double ladder, portable steps, work platform.</li> </ul>
ceiling lights Fall of persons from the height, from the ladder	Employees working on a ladder are at risk of a fall from the ladder due to - poor technical condition of the ladder; - unsuitable anchoring; - overturn of the ladder by another employee or by a vehicle; - unsuitable use; - carrying out of long-term works;	<ul> <li>Avoid using ladder with broken rungs, without a spreader chain (lock), with damaged fittings or the side rail.</li> <li>Visual inspections of ladders must be performed upon each release of the ladder from or receipt into the warehouse and prior to each use of the ladder.</li> <li>Place the ladder on a stable, firm, level and sufficiently spatial surface area so that its incline is not less than 2.5: 1, that the free space behind the rungs at the foot</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
	<ul> <li>carrying out of physically demanding works;</li> <li>handling of loads heavier than 15 kg;</li> <li>unpermitted distance of feet from the upper end of the ladder;</li> <li>climbing up or down or carrying out works with the employee's back to the ladder;</li> <li>failure to secure items against downfall from the ladder;</li> <li>use of hazardous tools and equipment;</li> <li>hazardous dropping down of items and materials from the ladder;</li> <li>works carried out simultaneously by more than one employee;</li> <li>use of the ladder as a support or loadbearing element;</li> <li>failure to perform prescribed inspections of the ladder;</li> <li>failure to use personal protective equipment at the workplace.</li> </ul>	of the ladder is at least 0.18 m, so that there is a free access space at the side of the ladder of at least 0.6 m and so that the ladder is secured against slipping.  Places with a risk of the ladder being overturn by another person or by a passing vehicle must be marked/labelled with safety signs or staffed with an assistant.  The upper edge of the ladder used for ascend must exceed the disembark level by at least 1.1 m or this extension must be substituted with another measure, such as handles enabling the disembarking employee safe holding when getting off the ladder.  During work on the ladder where the employee's feet are in the height of more than 5 m, personal safeguards against fall must be used.  It is only permitted to perform short-term, undemanding works on the ladder, with loads not heavier than 15 kg.  During work on the ladder, avoid stepping above 0.8 m from the upper edge of the not self-supporting ladder and above 0.5 m from the upper edge of a double ladder.  Do not ascend, descend or work on the ladder with your back turned towards the ladder, without a possibility to hold onto a support.  Ensure that employees working on a ladder have suitable equipment or suitable work clothes for keeping their tools or small fittings and supplies.  During work on the ladder, avoid using hazardous instruments or tools, such as air-operated tools, cartridge tools, chainsaws, etc. if the employee has no possibility of safe holding onto the ladder.  Avoid throwing objects or materials down the ladder if it is not possible to ensure their fall onto a safe place or if there is a risk of the employee being dragged off the ladder.  Avoid using the ladder as a support or load-bearing element for further ascend or descend.  Ensure that there is always only one employee working on the ladder.  Ensure that there is always only one employee working on the ladder.  Use the assigned personal protective equipment at the workplace during work on the ladder. Equip employees with suitable shoes and protective helmets and i

Hazard	Who is endangered by what	Hazard reduction measures
Persons being overrun, knocked down or hit by the service cart with cleaning preparations and detergents	Employees carrying out cleaning works and other persons present in the building are at risk of injuries resulting from: - incorrect or hazardous conduct; - inappropriately placed or secured load; - overloaded cart.	<ul> <li>Avoid transporting persons on the cart.</li> <li>Avoid presence in the roadway of the cart.</li> <li>Avoid overloading the cart above its specified bearing capacity or pulling force.</li> <li>Place cleaning agents and detergents on the cart evenly and in a stable position.</li> </ul>
Fire	Employees carrying out cleaning works and other persons present in the building are at risk of fire occurring in the course of handling and storage of combustible liquids (cleaning agents and detergents classified as combustible liquids).	<ul> <li>Determine the conditions of use and storage of combustible liquids, including their maximum amounts at the worksite.</li> <li>Observe fire prevention rules and instructions regarding storage and handling of combustible liquids.</li> <li>Observe the instructions set out in the safety data sheets.</li> <li>Mark/label the area with the presence of combustible liquids with appropriate safety signs.</li> <li>Avoid smoking and using open fire in the course of work with combustible liquids.</li> </ul>
Being struck by electrical current	Employees carrying out cleaning works are at risk of being struck by electrical current as a result of contact with live parts of the electrical device.	<ul> <li>Protect the parts of the electrical device that are under voltage against contact and humidity.</li> <li>Avoid touching any electrical devices with wet hands.</li> </ul>
Failure to use personal protective equipment at the workplace	Employees carrying out cleaning works are at risk of injuries resulting from the failure to use personal protective equipment at the workplace.	<ul> <li>Equip employees with prescribed personal protective equipment at the workplace in a demonstrable manner, i.e. against signature.</li> <li>Acquaint employees with the use of the assigned personal protective equipment at the workplace.</li> <li>Use the assigned personal protective equipment at the workplace.</li> <li>Perform inspections of the use of personal protective equipment at the workplace on a continuous basis.</li> </ul>

# **WORK AND PRESENCE IN THE LABORATORY**

	Laboratory employees are at risk of • Carry out laboratory works only in the premises equipped for this purpose.	
Unfulfilled	damage to health due to a failure to	
basic	comply with basic requirements regarding	
requirements	the laboratory equipment.	

Hazard	Who is endangered by what	Hazard reduction measures
regarding the laboratory		
Cutting, stabbing	Laboratory employees are at risk of cutting and stubbing by the cutting edges and sharp blades and spikes of the tools, by laboratory glass, broken glass in the course of handling and washing thereof.	<ul> <li>Validate and observe applicable work procedures and adjust them as needed.</li> <li>Determine a place for keeping the tools and keep them at such place.</li> <li>Discard in a timely manner cracked or damaged laboratory glass and dishes.</li> </ul>
Scalding, burning	Laboratory employees are at risk of scalding, burning, water, steam, contact with hot surface of devices.	<ul> <li>Validate and observe applicable work procedures and adjust them as needed.</li> <li>Clean and open laboratory furnace only after its cooling.</li> </ul>
Unprofessiona I interventions in the devices	Laboratory employees are at risk of injury as a consequence of unprofessional interventions in the devices.	<ul> <li>Carry out works on electrical devices only with adequate electrical engineering qualification.</li> <li>Carry out works on gas devices only with adequate professional qualification.</li> <li>Attend the devices in compliance with the use manuals.</li> </ul>
Being captured by a moving part of the device	Laboratory employees are at risk of injury resulting from being captured by a moving part of the device.	<ul> <li>Prevent access to moving or otherwise dangerous parts of the device by means of protection screens or in another safe manner.</li> </ul>
Being struck by electrical current	Laboratory employees are at risk of being struck by electrical current as a result of contact with live parts of the electrical device.	<ul> <li>Protect the parts of the electrical device that are under voltage against contact and humidity.</li> <li>Avoid touching any electrical devices with wet hands.</li> </ul>
Launching the device into operation in a dangerous condition	Laboratory employees are at risk of injury resulting from a failure to perform a proper check of the device prior to the work commencement (check of the used tools and their fixing, check of different functions of the machines, checks of protective safety elements, etc.).	<ul> <li>Carry out the prescribed check of the device condition prior to commencing the work.</li> <li>Do not start any device with missing or non-functioning protective elements.</li> </ul>
Stumbling, slipping, falls during walking	Laboratory employees at risk of - stumbling as a consequence of untidiness; - slipping on wet floor; - insufficient lighting.	<ul> <li>Appoint employees responsible for tidiness of the workplace.</li> <li>Keep the floors dry and clean.</li> <li>Ensure sufficient lighting of the workplace.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
Explosion, fire  Explosion, fire	Laboratory employees are at risk of burns caused by fire due to ignition of incorrectly stored combustible substances.  Laboratory employees at risk of explosion or burns due to incorrect storage and handling of pressure vessels used for	<ul> <li>At the workplace where combustible substances are stored, perform an inspection at least once a year of the functionality of fire extinguishers.</li> <li>Follow the instructions regarding storage of combustible substances and the local fire prevention rules that must be available at the workplace.</li> <li>Store vessels in vertical position and secured against fall.</li> <li>Secure vessels against handling by unauthorised persons.</li> <li>Open the vessel valve gently, without the use of any tools.</li> </ul>
	transporting gas.	<ul> <li>The stored vessels must be located in the distance of at least 3 meters from sources of open fire.</li> </ul>
Explosion, fire	Laboratory employees endangered by fire caused by lit burners.	Do not leave burners lit without supervision.
Infectious diseases	Laboratory employees endangered by infectious diseases due to handling biological materials.	<ul> <li>Determine and observe anti-epidemiologic measures.</li> <li>Determine and observe technological procedures for the work with biological materials, including their storage.</li> <li>Workplaces where biological materials are used to be properly labelled.</li> </ul>
Chemical substances harmful for health	Laboratory employees at risk of exposure to chemical substances harmful for health.	<ul> <li>Avoid using laboratory glass and dishes for the preparation of food, for drinking and for keeping food.</li> <li>Do not store food and beverages in refrigerators designated for keeping chemical substances or biological materials.</li> <li>Validate and observe applicable work procedures for handling chemical substances and adjust them as needed.</li> <li>Mark/label each chemical substance in the prescribed manner.</li> <li>Dispose of chemical substances and chemical waste only in accordance with the prescribed procedure.</li> <li>When working with substances capable of endangering human health, avoid direct contact of employees with these substances.</li> <li>Keep toxic substances so as to prevent their misuse; they must be stored locked and records must be kept of their stock.</li> <li>Do not eat, drink and smoke in the laboratories.</li> </ul>
Failure to use personal protective equipment at the workplace	Laboratory employees at risk of injury or health hazard as a consequence of a failure to use personal protective equipment at the workplace.	<ul> <li>Equip employees with prescribed personal protective equipment at the workplace in a demonstrable manner, i.e. against signature.</li> <li>Acquaint employees with the use of the assigned personal protective equipment at the workplace.</li> <li>Use the assigned personal protective equipment at the workplace.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
		<ul> <li>Perform inspections of the use of personal protective equipment at the workplace on a continuous basis.</li> </ul>

# **SHAKERS**

Being struck by electrical current	Attendance staff	• Re	o not perform any repairs if the device is connected to the power grid. depairs to be carried out by professionals. To not start the device if the covers and guards are removed.
Explosion	Attendance staff	• D	on one perform any operations in which aggressive or explosive reactions are expected to occur.

# **CENTRIFUGES**

Explosion	Attendance staff	<ul> <li>Do not place centrifuges in an area with a risk of explosion.</li> <li>Do not centrifuge combustible or explosive substances.</li> </ul>
Mechanical damage	Attendance staff by the flying off parts	<ul> <li>Do not relocate centrifuges while in operation.</li> <li>Do not use unprofessionally installed or defective centrifuges.</li> <li>Load the device equally.</li> </ul>
Being struck by electrical current	Attendance staff due to unprofessional operation of the centrifuge	<ul> <li>Repairs to be carried out by professionals.</li> <li>Do not use unprofessionally installed or defective centrifuges.</li> </ul>
Chemical substances harmful for health	Attendance staff while cleaning rotors	<ul> <li>Use prescribed cleaning and disinfection preparations for cleaning, in particular for cleaning of pathogenic microorganisms from rotors and inside parts of the centrifuges.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
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# **AUTOMATIC WASHING AND DISINFECTION DEVICE**

Explosion	Attendance staff	<ul> <li>Do not place in an area with a risk of explosion.</li> <li>Do not centrifuge combustible or explosive substances.</li> <li>Avoid using organic solvents.</li> </ul>
Scalding, burning	Attendance staff when opening doors and in contact with the heating units	<ul> <li>Open doors slowly and carefully.</li> <li>Baskets and extenders must be left to cool.</li> <li>Pour any residues of hot water from empty vessels into the washing area.</li> <li>Do not touch heating units if the door is open after the program end.</li> </ul>
Being struck by electrical current	Attendance staff due to unprofessional operation of the automatic washing and disinfection device	<ul> <li>Repairs to be carried out by professionals.</li> <li>The device may only be started by an employee of the service provider.</li> <li>Damaged device must be immediately decommissioned.</li> <li>Trained attendance staff.</li> </ul>
Chemical substances harmful for health	Attendance staff while cleaning rotors	<ul> <li>Use prescribed cleaning and disinfection preparations for cleaning, in particular for cleaning of pathogenic microorganisms from rotors and inside parts of the centrifuges.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
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# **AUTOCLAVE**

Scalding	Scalding of employees when taking objects out of the device	•	After the cycle end, the objects are hot, follow the instructions for use.
Being struck	Attendance staff due to unprofessional	•	Repairs to be carried out by professionals.
· •	operation of the autoclave	•	Damaged device must be immediately decommissioned.
current		•	Trained attendance staff.

# **GARDENING WORKS**

slipping, fall greenhouses, phytotron premises with plant mater risk of stumbling, slipping	rial and are at a	_	The place for storing material and tools must be chosen in such way which prevents excessive walking and material carrying.
Prick / scratch by plants Employees who work with material and are at a risk by plants	•		Do not work without a suitable work clothes. Follow the work procedures and instructions.

# **WORK AND PRESENCE IN THE BUILDING**

Stumbling, slipping falls during walking, climbing down or up	Employees working or being present in buildings at risk of injuries due to  - untidiness at the workplace;  - slipping on wet floor;  - obstacles on the thoroughfares at the workplace;  - insufficient lighting.	<ul> <li>Appoint employees responsible for tidiness of the workplace.</li> <li>Keep the workplace clean and tidy.</li> <li>Keep the floors dry and clean.</li> <li>Remove any obstacles from thoroughfares at the workplace that could cause stumbling.</li> <li>Ensure sufficient lighting of the workplace.</li> </ul>
Hitting an obstacle	Employees working or being present in buildings at risk of injuries due to hitting - permanent or temporary obstacles at an unsuitable place;	<ul> <li>Keep thoroughfares free and without obstacles at all times.</li> <li>Keep the minimum prescribed width of thoroughfares.</li> <li>Ensure sufficiently wide and high passages.</li> <li>Mark/label permanent obstacles, narrowed and lowered places, with appropriate safety signs.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
	<ul> <li>obstacles at the points of sudden narrowing or lowering of thoroughfares;</li> <li>unsuitably arranged interior furnishings of the building;</li> <li>as a consequence of insufficient lighting.</li> </ul>	<ul> <li>Ensure that the equipment and interior furnishings of the building do not restrict employees in their usual movement around the workplace.</li> <li>Ensure sufficient lighting of the thoroughfares and workplaces.</li> </ul>
Falls from height, falls into depth	Employees working or present in the buildings are at risk of injuries caused by fall from height or into depth due to missing enclosure or railings at open edges of elevated thoroughfares or workplaces, staircases, openings, etc.	<ul> <li>Safeguard open edges of the elevated thoroughfares, workplaces, thoroughfares, openings, etc. by means of railings or enclosures preventing falls of persons from height or into depth.</li> </ul>
Cutting, jabbing	Employees working or present in the buildings are at risk of injuries caused by cutting due to a hazardous condition of the working environment, work conditions, handled material or loads.	<ul> <li>Immediately fill any broken glass window or door panels, etc.</li> <li>Repair all places with a risk of jabbing (e.g. by a wire fencing, iron nails sticking out of the floor, etc.).</li> </ul>
Burning	Employees working or being present in buildings are at risk of burning in contact with hot surface of devices.	<ul> <li>Ensure that hot surfaces of devices in the building be equipped with protective covers or guards protecting employees against burning.</li> <li>As necessary, mark hazardous places where employees are at risk of burning with appropriate warning signs.</li> </ul>
Fall of materials, loads	Employees working or being present in buildings at risk of injuries due to being present in unprotected places of falls of materials or loads.	<ul> <li>Safeguard open edges of the workplaces in the height by means of a protective rail preventing fall of materials and loads.</li> <li>Safeguard the places where the fall of materials or loads threatens.</li> </ul>
Fall of materials, loads	Employees working or being present in buildings at risk of injuries due to fall of furniture, shelves, stored material, objects, etc.	<ul> <li>Ensure that the interior equipment of buildings be stable, without the hazard of its fall or collapsing. Promptly repair any damaged furniture feet or support posts, etc.</li> <li>Ensure that materials and objects be stored in the buildings.</li> <li>in a manner preventing their fall or collapsing.</li> </ul>
Works within a limited work space	Employees working or being present in buildings are at risk of injuries resulting from works within a limited work space.	<ul> <li>Ensure safe access to the window control elements.</li> <li>Ensure safe access to the stored material.</li> <li>Pay special attention in limited space in the course of handling materials and items.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
Being struck by electrical current	Employees working or being present in buildings at risk of being struck by electrical current as a result of contact with live parts of the electrical device due to - unprofessional handling of electrical devices; - poor technical condition of electrical devices; - carrying out of prohibited handling of electrical devices.	<ul> <li>Inspect on a continuous basis the technical condition of electrical devices and remove any identified defects.</li> <li>Avoid prohibited handling of electrical devices.</li> </ul>
Fire	Employees working or being present in buildings at risk of burns in the case of fire.	<ul> <li>Hold training on fire risks and the related fire prevention.</li> <li>Equip the building with the prescribed number and type of fire extinguishers.</li> <li>Keep escape routes from the building free at all times, without any obstacles.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
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# **CHEMICAL SUBSTANCES**

Failure to respect the issued bans	Employees handling chemical substances are at risk of being affected by the chemical substances as a consequence of: - failure to follow the manufacturer's instructions and bans; - failure to follow the employer's instructions and bans; - failure to follow instructions contained in the safety data sheets.	<ul> <li>Avoid using chemical substances for any other purpose than intended.</li> <li>Observe instructions of the manufacturer and employer if concentrates are used (dilution instructions).</li> <li>Obtain safety data sheets for each used substance (from the supplier, vendor), store the safety data sheets so as to ensure their accessibility to employees.</li> <li>Observe the instructions and bans contained in the safety data sheets.</li> </ul>
Professional and health incapacity of employees	Employees handling chemical substances are endangered by their own professional or health incapacity.	<ul> <li>Make sure that the employees be informed of the hazardous properties of the chemical substances used and stored (getting acquainted with the safety data sheets) prior to commencing the work with the substance.</li> <li>Make sure that employees undergo regular training on the necessary regulations and that their knowledge is tested.</li> <li>Do not allow any handling with extremely hazardous chemical substances to be carried out by a person without adequate qualification (applies to highly toxic, toxic, corrosive, carcinogenic, mutagenic substances and substances toxic for reproduction - pursuant to the Public Health Protection Act).</li> <li>Make sure that handling with dangerous chemical substances be carried out by persons with adequate health capability.</li> </ul>
Failure to provide the first aid	Employees affected by chemical substances are at risk of health damage as a consequence of: - not being aware of the first aid methods; - the lack of first aid equipment (missing or insufficiently equipped first aid kit).	<ul> <li>Organise a training on the first aid provision in the case of being affected by chemical substances. Precise and correct instructions provided by the Toxicology Information Centre in Prague (<a href="https://www.tis-cz.cz/">https://www.tis-cz.cz/</a>).</li> <li>Make sure that the workplace is equipped with first aid tools - suitably equipped first aid kit (antidotes, eye wash, etc.), determine the content of the first aid kit in cooperation with the occupational health care provider.</li> <li>Regular checks and supplementation of the first aid kit (the use by date, completeness of the equipment), appointment of a responsible person.</li> <li>Appoint a sufficient number of persons organising the first aid provision, responsible for calling the emergency ambulance, Fire Brigade of the Czech Republic, Police of the Czech Republic and organising the evacuation of employees.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
Being affected by a chemical substance, health damage	Employees handling chemical substances are at risk of being affected by the chemical substances, in particular: - inflammation, redness, etching or other forms of skin damage; - inhalation of fumes; - eye damage; - occurrence of secondary diseases or damage, e.g. breathing difficulties, tearing, etc.	<ul> <li>When opening packaging containing chemical substances, use eye and face protection - goggles or face shield (prevention of chemical substance squirting in the face).</li> <li>Validate and observe applicable work procedures for handling chemical substances and adjust them as needed.</li> <li>When working with substance capable of endangering human health, eliminating direct contact of employees with these substances.</li> <li>Follow the policies specified in the use manual, safety data sheets, observe basic hygiene principles.</li> <li>Avoid eating, drinking and smoking during the work with chemical substances. Wash hands thoroughly after work.</li> <li>If possible, avoid employing workers suffering from allergic reactions at the workplace with dangerous substances.</li> <li>Ensure sufficient ventilation of the workplace.</li> </ul>
Unsuitable storage and keeping of chemical substances	Employees getting in contact with dangerous substances are at risk of injury, being affected by chemical substances, health damage as a consequence of:  - a failure to respect the prescribed place, amount and packaging for storage;  - storing the substances together with other substances that cause dangerous reactions;  - insufficient information on the existing risks;  - insufficient ventilation of the storage area;  - a failure to follow the storage instructions.	<ul> <li>Mark / label any areas containing dangerous substances (storage rooms, cupboards) with safety signs (warning, prohibition signs - such as inflammable liquids, danger of corrosion, etc.).</li> <li>Determine the place for storing chemical substances, determine the maximum amount and conditions of storage.</li> <li>Store chemical substances only at places designated for this purpose, in prescribed amounts and in safe packaging.</li> <li>Store chemical substances in the original packaging designated for this purpose.</li> <li>Make sure that all packaging containing chemical substances be labelled in the prescribed manner (in particular including information on the hazards, hazard pictograms).</li> <li>Avoid storing chemical substances in food and beverage containers (due to the risk of mistaking).</li> <li>Observe the instructions of the manufacturers of hazardous substances relating to the storage of chemical substances - see the safety data sheets (storage temperature, ventilation, non-compatible substances, etc.).</li> <li>Avoid storing the substances together with other substances that cause dangerous reactions.</li> <li>Ensure sufficient ventilation of the areas where dangerous substances are being stored.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
Handling of toxic substances (damage to health)	Employees who handle toxic substances are at risk of being affected and exposed to the hazardous properties of these substances: H300 Fatal if swallowed H310 Fatal in contact with skin H330 Fatal if inhaled H301 Toxic if swallowed H311 Toxic in contact with skin H331 Toxic if inhaled H370 Causes damage to organs H372 Causes damage to organs through	<ul> <li>Draft written rules on safety, health protection and environmental protection for workplaces where employees handle hazardous chemical substances (substances, mixtures) classified as highly toxic or toxic with respect to the work with these chemical substances.</li> <li>The rules must contain in particular the information regarding hazardous properties of the chemical substances and mixtures handled by the employees, instructions regarding safety, health protection, environmental protection, instructions for first pre-medical aid and procedures to be applied in the case of an accident.</li> <li>Acquaint employees with the policies - demonstrable training.</li> <li>Post the policies at the workplace, i.e. ensure that they be freely accessible to the employees handling such substances.</li> <li>Discuss the wording of the policies with the competent local Public Health</li> </ul>
	prolonged or repeated exposure	Protection Authority based on the relevant place of work.  • Keep toxic substances so as to prevent their misuse; they must be stored locked and records must be kept of their stock.
Handling of corrosive substances (Damage to health)	Employees who handle corrosive substances are at risk of being affected and exposed to the hazardous properties of these substances: H314 Causes severe skin burns and eye damage	<ul> <li>Draft written rules on safety, health protection and environmental protection for workplaces where employees handle hazardous chemical substances (substances, mixtures) classified as corrosive with respect to the work with these chemical substances.</li> <li>The rules must contain in particular the information regarding hazardous properties of the chemical substances and mixtures handled by the employees, instructions regarding safety, health protection, environmental protection, instructions for first pre-medical aid and procedures to be applied in the case of an accident.</li> <li>Acquaint employees with the policies - demonstrable training.</li> <li>Post the policies at the workplace, i.e. ensure that they be freely accessible to the employees handling such substances.</li> <li>Discuss the wording of the policies with the competent local Public Health Protection Authority based on the relevant place of work.</li> </ul>
Handling of carcinogenic and mutagenic substances and substances	Employees who handle carcinogenic and mutagenic substances and substances toxic for reproduction are at risk of being affected and exposed to the hazardous properties of these substances: H350 May cause cancer H350i May cause cancer by inhalation	<ul> <li>Draft written rules on safety, health protection and environmental protection for workplaces where employees handle hazardous chemical substances (substances, mixtures) classified as carcinogenic marked with R-statement 45 or 46, mutagenic marked with R-statement 46 and toxic for reproduction marked with R-statement 60 or 61, with respect to the work with these chemical substances.</li> <li>The rules must contain in particular the information regarding hazardous properties of the chemical substances and mixtures handled by the employees, instructions</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
toxic for reproduction (Damage to health)	H340 May cause genetic defects H360F May impair fertility H360D May cause harm to the unborn child  Employees who handle extremely	regarding safety, health protection, environmental protection, instructions for first pre-medical aid and procedures to be applied in the case of an accident.  Acquaint employees with the policies - demonstrable training.  Post the policies at the workplace, i.e. ensure that they be freely accessible to the employees handling such substances.  Discuss the wording of the policies with the competent local Public Health Protection Authority based on the relevant place of work.  Determine the conditions of use and storage of combustible, explosive and
combustible substances and explosives (fire, explosion)	combustible substances, highly combustible substances, combustible substances, or oxidising substances and other persons in the building are at risk of fire or explosion in the course of handling and storing these substances.	<ul> <li>oxidising substances (liquids, solids or gases), including their maximum amounts at the workplace or in the warehouse.</li> <li>Observe the instructions for storage and handling.</li> <li>Draft and observe fire prevention rules.</li> <li>Observe the instructions set out in the safety data sheets.</li> <li>Post appropriate safety signs.</li> <li>Avoid smoking and using open fire in the course of work with combustible liquids.</li> <li>Hold fire and explosion risk and fire prevention training.</li> <li>Equip buildings and workplaces with the prescribed number and type of fire extinguishers.</li> <li>Ensure inspections of fire extinguishers by an expert company once a year.</li> </ul>
Environmental pollution	Damage to the environment (water, soil, sewage system air) as a consequence of the use or storage of chemical substances or as a consequence of an accident.	<ul> <li>Dispose of chemical substances and chemical waste only in accordance with the prescribed procedure.</li> <li>Perform immediate decontamination of the contaminated areas, packaging, etc.</li> <li>Proceed in accordance with the manufacturer's instructions – see the safety data sheet(s).</li> <li>In the event of extensive leakage, inform the competent authorities - fire brigade, water management authorities, environmental protection department of the municipal authority, etc.</li> </ul>
Failure to use personal protective equipment at the workplace	Employees handling chemical substances are at risk of injury or health hazard as a consequence of a failure to use personal protective equipment at the workplace.	<ul> <li>Equip employees with prescribed personal protective equipment at the workplace (to be determined in a guideline) in a demonstrable manner, i.e. against signature.</li> <li>Acquaint employees with the use of the assigned personal protective equipment at the workplace.</li> <li>Use the assigned personal protective equipment at the workplace during work, in particular rubber gloves resistant against chemical substances, protective goggles or face shield, aprons resistant against the used substances - based on the risk</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
		<ul> <li>assessment and in accordance with the instructions set out in the safety data sheet.</li> <li>Perform inspections of the use of personal protective equipment at the workplace on a continuous basis.</li> </ul>

Note: The hazards of individual chemical substances are specified int the safety data sheets available at each workplace.

# **HANDHELD TOOLS**

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Cutting	Persons working with handheld tools	<ul> <li>Follow the manufacturer's instructions.</li> <li>When using damaged tools, the risk of injury is much higher.</li> </ul>
		<ul> <li>Sharp and pointed tools may only be transported or carried with protective cases or pouches.</li> </ul>
		Use manual tools only for the purposes determined by their functions
		Training of employees
		Use of protective gloves against mechanical risks.
Use of tools in explosive environment		<ul> <li>At places with a risk of ignition of gases, vapours or explosive dust, it is prohibited to work with tools the use of which may generate sparks. It is necessary to use special sparkle-free tools.</li> </ul>
Dust		Maintenance and replacement of the exhaust system filters according to the instructions.
Noise	Attendance and operation staff at risk of impaired hearing due to permanent stay in the environment with a high noise level.	<ul> <li>Acquaint the attendance staff and other employees with the risk and with the manner of using personal protective equipment for hearing protection.</li> </ul>
Eye injuries		Acquaint the attendance staff and other employees with the risk and with the manner of using personal protective equipment for eye protection.

# **ELECTRICAL HANDHELD TOOLS**

Hazard	Who is endangered by what	Hazard reduction measures
Failure to respect the issued bans	Employees working with electrical handheld tools are at risk of injury due to the use of such tools for unpermitted purposes, overloading the tools above the levels set out by their manufacturers, or a failure to follow the manufacturer's instructions for the use of such tools and devices.	<ul> <li>Avoid using the electrical handheld tools for any other purpose than intended.</li> <li>Avoid overloading the electrical handheld tools above the levels set out by the manufacturer.</li> <li>Follow the manufacturer's instructions for use of the device.</li> </ul>
Professional incompetence of employees	Employees operating electrical handheld tools are endangered by their own professional incompetence.	<ul> <li>Ensure proper training of employees before they start working with electrical handheld tools by themselves.</li> <li>Ensure that electrical handheld tools be operated only by employees authorised for this purpose.</li> <li>Ensure that employees operating electrical handheld tools undergo regular training on the necessary regulations and that their knowledge be tested.</li> <li>Not to allow electrical handheld tools to be repaired, inspected or reviewed by an employee without adequate electrical engineering qualification.</li> </ul>
Failure to perform prescribed inspections and reviews	Employees operating electrical handheld tools are endangered by the delivery of tools in a dangerous condition.	<ul> <li>Ensure the prescribed inspection to be performed before electrical handheld tools are released from and after they are returned to the warehouse.</li> <li>Perform inspections of the electrical installations and parts of the electrical devices of the tools on a continuous basis and ensure removal of any identified defects.</li> <li>Ensure timely performance of reviews of electrical installations and devices of the tools.</li> </ul>
Failure to perform timely repairs of tools	Employees operating electrical handheld tools are endangered by dangerous condition of electrical installations or by the use of damaged tools.	Ensure timely performance of repairs of electrical installations and devices of the tools.
Removed protective guards or covers	Employees operating electrical handheld tools are endangered by a direct contact with rotating or otherwise moving parts of the device.	Not to remove any protective guards or covers of electrical handheld tools.
Use of broken devices	Employees operating electrical handheld tools are endangered by sudden breakdowns thereof.	<ul> <li>In the event of interruption of the smooth running of electrical handheld tools, immediately turn the device off.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
Fall of employees from the height	Employees operating electrical handheld tools are endangered by fall from the ladder.	<ul> <li>Avoid using extension ladders the side rails of which are not equipped with antislip ends, with damaged or missing rungs.</li> <li>Avoid leaning ladders against unstable structures.</li> <li>Avoid using double ladders that are not equipped with spreader chains (locks), connecting rods and fittings.</li> </ul>
Fall of a load	Employees present under the place of work of employees operating electrical handheld tools are at risk of injury due to the fall of loads from the place of such works.	When ascending a ladder, avoid holding any materials, objects or tools in hands.
Injuries caused by tools	Employees operating electrical handheld tools are endangered by hazardous handling of the tools in the course of their replacement.	Follow the manufacturer's instructions when replacing tools.
Injuries caused by tools	Employees operating electrical handheld tools are endangered by the use of damaged tools.	Use only undamaged tools for work.
Stumbling, slipping falls during walking, climbing down or up	Employees operating electrical handheld tools are endangered by defective condition of floors and thoroughfares.	<ul> <li>Inspect the condition of floors and thoroughfares at the workplace on a continuous basis, ensure the removal of any identified defects.</li> <li>Covers of shafts, depressions, etc. must be at the same level as the surrounding floor or thoroughfare.</li> <li>Mark/label obstacles on thoroughfares, which cannot be removed, with safety colours.</li> </ul>
Stumbling, slipping falls during walking, climbing down or up	Employees working / present in the halls are endangered by untidiness at the workplace, slippery floor.	<ul> <li>Inspect the condition and tidiness at the workplace on a continuous basis, ensure the removal of any identified defects.</li> <li>Appoint employees responsible for tidiness of the workplace.</li> <li>Remove any obstacles from thoroughfares that could cause stumbling (e.g. covers, lids, cables, hoses, etc.).</li> </ul>
Stumbling, slipping falls during walking,	Employees working / present in the halls are endangered by insufficient lighting.	Ensure sufficient lighting of the workplace.

Hazard	Who is endangered by what	Hazard reduction measures
climbing down or up		
Failure to use personal protective equipment at the workplace	Employees operating electrical handheld tools are endangered by the condition of the operated tools, condition of the workplace, working environment, etc.	<ul> <li>Equip employees with prescribed personal protective equipment at the workplace in a demonstrable manner, i.e. against signature.</li> <li>Acquaint employees with the use of the assigned personal protective equipment at the workplace.</li> <li>Use the assigned personal protective equipment at the workplace.</li> <li>Perform inspections of the use of personal protective equipment at the workplace on a continuous basis.</li> </ul>
Fire	Employees operating electrical handheld tools are endangered by the occurrence of fire as a consequence of damaged or dusted electromotors of the electrical handheld tools.	The electromotor of the electrical handheld tools may not be damaged or covered with dust.
Injuries by electrical current	Employees operating electrical handheld tools are endangered by the contact with live parts of the electrical device.	<ul> <li>Maintenance or repairs of electrical handheld tools to be performed exclusively when the devices are disconnected from power supply.</li> <li>Maintenance or repairs of electrical handheld tools connected to power supply must be approved in advance by the competent managing employee.</li> <li>When carrying out maintenance or repairs of electrical handheld tools connected to power supply, it is necessary to use only insulated tools.</li> <li>Avoid operating electrical handheld tools with wet hands or with wet tools.</li> <li>Before commencing work with electrical handheld device, adopt measures preventing their accidental connection to the power supply/switching on.</li> <li>Power cords may not have damaged insulation and must be secured against disconnection.</li> <li>The plug of power cords may be damaged.</li> <li>The safety cable of power cords must be securely connected.</li> <li>Control elements or any other elements of electrical handheld tools may not be damaged in a manner impairing their protection against hazardous contact.</li> </ul>

# PRESSURE GAS VESSELS

Explosion,	Employees handling pressure gas vessels	•	When transporting gas vessels in a motor vehicle, place them in a space separated
fire	or present in their vicinity are at risk of		from the driver.

Hazard	Who is endangered by what	Hazard reduction measures
Fall of loads, being hit by a load	burns caused by fire as a consequence of the gas ignition or at risk of injury in the case of subsequent gas explosion.  Employees handling pressure gas vessels or present in their vicinity are at risk of injury caused by their fall or unexpected movements.	<ul> <li>Avoid transporting gas vessels together with other hazardous substances or with any substances with which the transported gases react.</li> <li>Avoid common storing of vessels containing gases that react with each other in a closed warehouse.</li> <li>Follow the instructions for handling gas vessels at the workplace.</li> <li>Open valves slowly, without the use of tools.</li> <li>Secure vessels against handling by unauthorised persons.</li> <li>Ensure that the temperature of vessels does not exceed 50°C.</li> <li>Without roofing, it is only possible to store gas vessels the construction of which guarantees sufficient safety also in the case of heating.</li> <li>Gases that together create an explosive mixture must be stored separately.</li> <li>Full vessels must be stored separately from empty vessels and the storage areas must be properly labelled.</li> <li>The warehouse must be labelled with signs specifying the types of gases, no smoking signs, signs prohibiting the use of open fire (flame) and signs prohibiting entry to unauthorised persons.</li> <li>Ensure that no combustible substances be stored in the warehouse of gas containers and in the distance of at least 5 m from such warehouse and that no works with open fire be carried out in this area without permission.</li> <li>At least once every 3 years instruct employees handling gas vessels in a demonstrable manner of the instructions for the work with such vessels.</li> <li>Store vessels in vertical position and secured against fall.</li> <li>During transport, secure vessels against spontaneous movement.</li> </ul>
Unwanted leakage of gas from the vessels, valves	Employees in the course of emptying vessels, handling and operating them	<ul> <li>Inspect the condition of the vessel before use within the scope of the instructions for use.</li> <li>If a defect is found, return the vessel back to the filling station, specifying the type of the identified defect.</li> <li>Avoid opening the vessel valve by force.</li> <li>Do not connect to the pressure valves any screw nuts with damaged or different threads.</li> <li>The rooms and areas where operation and spare vessels are stored must be enable ventilation in accordance with applicable fire prevention and sanitary regulations pertaining to the given types of the stored gases.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
		Avoid storing operation and spare vessels in unventilated, difficult to access areas.
Hazards arising from the gas properties. Fire, burns in the case of hydrogen leakage through untight or fat contaminated vessel valve.	Employees working with pressure vessels	Avoid contamination of the vessel valve by fats.

# LASER INSTRUMENTS

Hazard for eyes	Employees instruments	working	with	laser	•	Follow Do not o	the pen the ir	manufacturer's estrument.	instructions	during	work.
					•	the oper on the e	ration polic yes and sl res to be a	appointed to operate cies, properties of las kin, hazards associat pplied in the case of t	er devices, biologi ed with the opera	ical impacts tion of laser	of lasers devices,
					•	Secure t	he device	against handling by t	unauthorised pers	ons.	
					•	Use lase	r devices i	in the environment fo	or which they are o	constructed.	
					•	Use the	assigned p	personal protective ed	quipment at the w	orkplace.	
Being struck	Employees	working	with	laser	•	Repairs t	to be perfo	ormed only by a profe	essional company.		
by electrical current	instruments				•	Do not o	pen the in	struments.			

# **BIOLOGICAL RISKS**

Hazard	Who is endangered by what	Hazard reduction measures
Leakage of biological agents of class 2 and 3  Staining, contamination	Employees handling biological agents  Employees handling biological agents	<ul> <li>Use of flow-boxes.</li> <li>No entry by unauthorised persons.</li> <li>Do not take biological agents out of the lab.</li> <li>Laboratories to be labelled with "Biohazard" signs.</li> <li>Compliance with frequent disinfection requirements.</li> <li>Regular cleaning of the laboratory furnishing and appliances.</li> </ul>
Infectious materials, infections and allergies resulting from handling of microorganisms and cellular cultures, such as human tissues.  Accidental spillage and injuries caused by an injection needle.	Employees handling infectious materials	<ul> <li>Only employees with adequate qualifications acquainted with the relevant biological and other risks to be employed in laboratories containing infectious materials.</li> <li>The worksite supervisor shall determine what is an infectious material; in the event of doubt, a suspicious material shall be treated as infectious.</li> <li>The tools and aids used for the work with infectious materials, including the rooms, to be labelled with the "INFECTION" sign.</li> <li>Works with infectious materials to be carried out only in the designated and labelled areas and boxes.</li> <li>Unauthorised persons to be banned from the designated areas where works with infectious materials are being carried out.</li> <li>Infectious materials to be handled only at designated places and with the use of provided personal protective equipment.</li> <li>The used and leftover infectious materials to be disinfected directly or to be safely removed for disinfection.</li> <li>Microbiological safety boxes.</li> <li>Adequate personal protection and hygiene measures.</li> </ul>
Cutting	Employees working with glass equipment	<ul> <li>Careful handling of glass equipment.</li> <li>Use of suitable shoes and other personal protective equipment at the workplace.</li> <li>Broken glass to be deposited in containers designated for this purpose.</li> <li>Broken glass not to be collected with hands.</li> </ul>

## **MEDICAL ELECTRICAL DEVICES**

Cutting, scratching by various rotating parts of the device (e.g. tooth grinder).	Employees working with medic electrical devices	Safe manipulation with the devices.
Injuries caused by the employees being struck by electrical current in the course of common activities, usually through a contact on uncovered or otherwise unprotected live parts of electrical devices.	Employees working with medic electrical devices	Regular inspection and maintenance of medical electrical devices.
Damage or breakage of the insulation of conductors and power cord cables.	Employees working with medic electrical devices	<ul> <li>Keeping medical electrical devices in a safe condition.</li> <li>Regular professional reviews by an authorised electrician (inspections, removal of defects).</li> <li>Careful handling of cables and power cords at workplaces (floating mining machinery).</li> <li>Observe the prohibition of leading electrical supply cables on thoroughfares and at places where such cables could be damaged by operation devices.</li> </ul>

Hazard Who is endangered by what Hazard reduction measures	Hazard	Who is endangered by what	Hazard reduction measures
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## **MR SYSTEM**

Unsuitable clothing and things brought into the premises	Employees and patients in the event of bringing in any magnetized items	<ul> <li>Avoid using resuscitation devices or oxygen bottles.</li> <li>Avoid using transport trolleys, mobile beds, stretchers containing magnetized parts.</li> <li>Use only verified accessories.</li> <li>Use only machines and devices safe in terms of MR.</li> <li>Ensure that the area with controlled access (protective zone of 0.5 mT) be entered only by persons with adequate authorisation.</li> <li>Keep the door to the examination room closed.</li> <li>Magnetized items brought into the magnetic field become projectiles!</li> </ul>
Breakdown of the device	Persons present near the MR device	<ul> <li>Intensities of the magnetic flow exceeding 0.5 mT can cause interference of electronic implants or other devices.</li> <li>Ensure trained attendance staff and regular maintenance and reviews.</li> </ul>
Creation of a current loop and contact with the tunnel wall	Patients	<ul> <li>Make sure that the patient is positioned in a correct distance from the tunnel wall and that there is a correct distance also between their body parts.</li> <li>Keep sufficient distance from the magnet tunnel and from VF coils.</li> <li>Shorten the time of the measuring exposure.</li> </ul>
Heating / ignition of synthetic blankets	Patients	Use only blankets made of paper, cotton or linen.
Vertical and horizontal movement of the examination table	Patient and other persons	<ul> <li>While the bed is moving, ensure that there are no obstacles present in the space between the examination table and the magnet (e.g. overreaching body parts or long hair).</li> <li>Secure the patient's arms and legs with belts to prevent the patient being caught between the table board and the magnet cover.</li> <li>Make sure that the height detection sensor is not covered by clothes, blankets or accessories.</li> </ul>
Stumbling	Employees and patients	<ul> <li>Cables and hoses of intervention parts to be led so as to avoid stumbling over them.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
Noise	Employees and patients	<ul> <li>Provide the patient with adequate hearing protection that reduces noise at least to 99 dB(A).</li> </ul>
		<ul> <li>Ensure that the employees in the examination room use hearing protection during the examination, reducing the noise level at least to 85 dB(A).</li> <li>Use the assigned personal protective equipment at the workplace.</li> </ul>

#### **IONISING RADIATION**

Hazard

Biologic effects of radiation	<ul> <li>When operating insignificant or type-approved minor sources of ionising radiation, fulfil the reporting obligation and report the following one day prior to the start of the relevant activities: <ul> <li>identification of the reporting person;</li> <li>specification and number of the used sources of ionising radiation;</li> <li>building where the sources will be located;</li> <li>expected method of disposal of the sources of ionising radiation.</li> </ul> </li> <li>Use sources of ionising radiation in compliance with the approved instructions within the scope of type approval - certified radioactive source (usual life span of 10 - 20 years).</li> <li>Notify the State Office for Nuclear Safety of any changes and provide all</li> </ul>
	necessary cooperation and assistance in the course of inspections.
	<ul> <li>Ensure the conditions of safe operation of workplaces with closed radionuclide radiators (use the radiator only for the time necessary and outside this time keep it not in a working position, but in a shielding cover or otherwise shielded); when performing radiation and radiography with a closed radionuclide radiator, it is necessary to check by means of measuring after completing the work or before entering the delimited or shielded space that the radiator was properly shielded or inserted in the shielding cover; the radiator may not be used until it has undergone an acceptance test or if the time period for periodic tests has already passed since the most recent test or if there are any other reasons requiring the test performance.</li> <li>Observe the operating conditions of the source within the scope of quality pertaining to the activities associated with the utilisation of nuclear energy, according to the emergency plan and the extent of the controlled zone.</li> </ul>
	<ul> <li>Appoint responsible persons in compliance with the Nuclear Energy Act.</li> </ul>
	<ul> <li>For the purposes of radiation protection, determine an inspected zone depending on the technical adjustment of the source.</li> </ul>
	<ul> <li>Observe the conditions of the permission for handling sources of ionising radiation.(ensure radiation protection, physical protection and emergency readiness, including its verification within the scope corresponding to the permit, observe the agreed terms and conditions of the permit, technical and organisational conditions of safe operation of ionising radiation sources, radiation limits, approved quality assurance program, requirements pertaining</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
		to the correctness of measuring and measuring devices, measuring and
		services associated with the presence of ionising radiation).
		<ul> <li>Ensure the performance of determined activities only by persons with adequate professional health and mental qualifications and capacities.</li> </ul>
		<ul> <li>Ensure continuous supervision over work safety, arrange for medical examinations.</li> </ul>
		<ul> <li>Ensure suitable conditions for pregnant or breastfeeding women working within the controlled zone, providing the same radiation protection level for the foetus or for the infant as for each and every individual of the population.</li> </ul>
		<ul> <li>Ensure a system of education and verification of capabilities and special professional competences of employees depending on the significance of their work.</li> </ul>
		<ul> <li>Use the assigned personal protective equipment at the workplace.</li> </ul>
		Ensure safe termination of activities

## WORK AND PRESENCE IN THE GARDEN AND IN THE GREENHOUSE

Stumbling, slipping, fall  Stinging,	Employees carrying out works in the garden, in the outdoor areas, are at risk of slipping, stumbling, fall: - in untidy terrain; - in the course of carrying gardening and other equipment and tools; - in the course of carrying materials. Employees working with biological	<ul> <li>Use suitable work shoes.</li> <li>Choose a place for keeping the material and tools so as to limit, as much as possible, the need to walk and carry the material.</li> <li>Use mechanical equipment for transporting the material to the place of its consumption and use.</li> <li>Carry the tools and equipment in a correct and safe manner.</li> <li>Do not work without work clothes (with bare body).</li> </ul>
scratching by plants	plant material are at risk of stinging, scratching be pointed needles, thorns, spiky plant residues after being chopped, etc.	<ul> <li>Use suitable work clothes depending on the nature of hazard and local conditions.</li> <li>Use personal protective equipment at the workplace, in particular work gloves.</li> </ul>
Insect bites and stings	Employees carrying out works in the garden, in the outdoor areas, are at risk of:  - bites or stings of stinging insects (wasps, hornets);  - shock as a reaction to bee venom (the hazard is increased by combination with physical strain, fatigue and climate).	<ul> <li>Use suitable work clothes depending on the nature of hazard and local conditions.</li> <li>Ensure availability of disinfection preparations at the workplace to dress the wound and medications preventing shock in the case of stinging; use such preparations and medications in line with the instructions for use.</li> </ul>
Exposure to pesticides, damage to health	Employees handling preparations and agents for the inhibition and control of plant and animal pests and for the protection of plants (pesticides) are at risk of: - skin diseases; - digestive tract disorders; - respiratory tract disorders.	<ul> <li>Get acquainted with the information on the packaging labels and use instructions.</li> <li>Observe safety instructions of the pesticide manufacturers.</li> <li>Dilute concentrates only outside closed rooms.</li> <li>Mark/label containers in which the preparations are stored.</li> <li>Perform spraying under windless conditions or under light wind, always in the downwind direction.</li> <li>Observe the protective time periods.</li> <li>Mark/label the treated plants.</li> <li>Prevent early consumption of treated cultures.</li> <li>During spraying, avoid direct hitting of persons.</li> <li>Store pesticides only at places designated for this purpose, in prescribed amounts and in safe packaging.</li> <li>Prevent direct contact of skin with pesticides.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
Environmental pollution	Hazard of environmental pollution due to handling preparations and agents for the inhibition and control of plant and animal pests and for the protection of plants (pesticides).	<ul> <li>If possible, avoid assigning these works to workers suffering from allergic reactions.</li> <li>Consistently use the assigned personal protective equipment during work (special gloves, arm sleeves, aprons resistant against the present pesticides, protective goggles, face shields, etc.).</li> <li>Do not eat, drink and smoke when handling the preparations.</li> <li>After the end of work, decontaminate the personal protective equipment, the used work tools and reusable packaging.</li> <li>Have a first aid kit available and equipped with tools and preparations for the provision of first aid.</li> <li>When using pesticides, prevent contamination of surface and ground water.</li> </ul>
Fall of persons from the ladder	Employees working on a ladder are at risk of a fall from the ladder due to  - poor technical condition of the ladder;  - unsuitable anchoring;  - overturn of the ladder by another employee or by a vehicle;  - unsuitable use;  - carrying out of long-term works;  - carrying out of physically demanding works;  - handling of loads heavier than 15 kg;  - unpermitted distance of feet from the upper end of the ladder;  - climbing up or down or carrying out works with the employee's back to the ladder;  - failure to secure items against downfall from the ladder;  - use of hazardous tools and equipment;	<ul> <li>Avoid using ladder with broken rungs, without a spreader chain (lock), with damaged fittings or the side rail.</li> <li>Visual inspections of ladders must be performed upon each release of the ladder from or receipt into the warehouse and prior to each use of the ladder.</li> <li>Place the ladder on a stable, firm, level and sufficiently spatial surface area so that its incline is not less than 2.5: 1, that the free space behind the rungs at the foot of the ladder is at least 0.18 m, so that there is a free access space at the side of the ladder of at least 0.6 m and so that the ladder is secured against slipping.</li> <li>Places with a risk of the ladder being overturn by another person or by a passing vehicle must be marked/labelled with safety signs or staffed with an assistant.</li> <li>The upper edge of the ladder used for ascend must exceed the disembark level by at least 1.1 m or this extension must be substituted with another measure, such as handles enabling the disembarking employee safe holding when getting off the ladder.</li> <li>During work on the ladder where the employee's feet are in the height of more than 5 m, personal safeguards against fall must be used.</li> <li>It is only permitted to perform short-term, undemanding works on the ladder, with loads not heavier than 15 kg.</li> <li>During work on the ladder, avoid stepping above 0.8 m from the upper edge of the not self-supporting ladder and above 0.5 m from the upper edge of a double ladder.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
Excessive physical strain	<ul> <li>hazardous dropping down of items and materials from the ladder;</li> <li>works carried out simultaneously by more than one employee;</li> <li>use of the ladder as a support or load-bearing element;</li> <li>failure to perform prescribed inspections of the ladder.</li> </ul> Employees carrying out works in the garden, in the outdoor areas, are at risk of damage to health due to	<ul> <li>Do not ascend, descend or work on the ladder with your back turned towards the ladder, without a possibility to hold onto a support.</li> <li>Ensure that employees working on a ladder have suitable equipment or suitable work clothes for keeping their tools or small fittings and supplies.</li> <li>During work on the ladder, avoid using hazardous instruments or tools, such as air-operated tools, cartridge tools, chainsaws, etc. if the employee has no possibility of safe holding onto the ladder.</li> <li>Avoid throwing objects or materials down the ladder if it is not possible to ensure their fall onto a safe place or if there is a risk of the employee being dragged off the ladder.</li> <li>Avoid using the ladder as a support or load-bearing element for further ascend or descend.</li> <li>Ensure that there is always only one employee working on the ladder.</li> <li>Use the assigned personal protective equipment at the workplace during work on the ladder. Equip employees with suitable shoes and protective helmets and if the foot height above the terrain level is more than 5 m, the employees must be secured against fall.</li> <li>Carry out inspections of ladders at least once a year, confirmed by an inspection record.</li> <li>Do not perform manual handling of loads of excess weight.</li> <li>Use mechanical equipment for transporting the material to the place of its</li> </ul>
	manipulation with loads of the weight exceeding the prescribed limits.	consumption and use.
Failure to use personal protective equipment at the	Employees carrying out gardening works are at risk of injuries resulting from the failure to use personal protective equipment at the workplace.	<ul> <li>Equip employees with prescribed personal protective equipment at the workplace in a demonstrable manner, i.e. against signature.</li> <li>Acquaint employees with the use of the assigned personal protective equipment at the workplace.</li> </ul>
workplace		<ul> <li>Use the assigned personal protective equipment at the workplace.</li> <li>Perform inspections of the use of personal protective equipment at the workplace on a continuous basis.</li> </ul>

# **BRUSH CUTTERS, LAWNMOWERS**

Failure to respect the issued bans	Employees working with brush cutters or lawnmowers are at risk of injury due to the use of such tools for unpermitted purposes, overloading the tools above the levels set out by their manufacturers, or a failure to follow the manufacturer's instructions for the use of such tools and devices.	<ul> <li>Avoid using the device for any other purpose than intended.</li> <li>Avoid overloading the device above the levels set out by the manufacturer.</li> <li>Follow the manufacturer's instructions for use of the device.</li> </ul>
Professional incompetence of employees	Employees operating a brush cutter or a lawnmower are endangered by their own professional incompetence.	<ul> <li>Ensure proper training of employees before they start working with the device by themselves.</li> <li>Ensure that the devices be operated only by employees authorised for this purpose.</li> <li>Ensure that employees operating the devices undergo regular training on the necessary regulations and that their knowledge be tested.</li> <li>Not to allow the devices to be operated, repaired, inspected or reviewed by an employee without adequate electrical engineering qualification.</li> </ul>
Failure to perform prescribed inspections and reviews	Employees operating a brush cutter or a lawnmower are endangered by having received a device in a hazardous condition.	<ul> <li>Perform inspections of the electrical installations and parts of the electrical device on a continuous basis and ensure removal of any identified defects.</li> <li>Ensure timely performance of reviews of electrical installations and devices.</li> </ul>
Failure to perform timely repairs of tools	Employees operating a brush cutter or a lawnmower are endangered by dangerous condition of electrical installations or by the use of damaged devices.	Ensure timely performance of repairs of electrical installations and devices.
Cutting	Employees operating a brush cutter or a lawnmower are endangered by being cut by their work tools  - in the course of reviews, cleaning, adjustments, maintenance and repairs;  - in the course of transport;  - in the case of kickback;	<ul> <li>Ensure professional training of the persons operating brush cutters and lawnmowers, including the acquaintance with the instructions for use, the local operation safety regulations and the application of safety regulations pertaining to the operation in the specific work actions performed.</li> <li>Inspections, cleaning, maintenance and repairs to be performed only if the engine is switched off.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
	<ul> <li>in the case of removal of the protective device;</li> <li>in the course of working with a damaged protective cover;</li> <li>due to switching off the safety device;</li> <li>due to being present in a hazardous area during work;</li> <li>in the course of work in an insufficient work space;</li> <li>in the course of work if the cutting disc is in motion during idling speed of the engine;</li> <li>in the course of walking around the workplace with the engine on;</li> <li>due to departing from the running device.</li> </ul>	<ul> <li>Transport the device with installed transportation cover or with dismounted work tool.</li> <li>To avoid kickback, pay special attention during work and consistently follow all instructions provided in the manufacturer's manual.</li> <li>Do not remove any protective devices, covers, guards and safety elements.</li> <li>Do not work with a device that has a damaged protective cover/guard.</li> <li>Avoid switching off the safety device.</li> <li>Where work is being carried out with a brush cutter or a lawnmower, eliminate the presence of any persons within the hazard area of such device.</li> <li>Work with a brush cutter or lawnmower only within a sufficient work space.</li> <li>Avoid working with the device if the cutting disc is in motion during idling speed of the engine.</li> <li>When walking around the workplace with a brush cutter, prevent the rotation of the cutting disc and when walking for a distance longer than 75 m, switch off the engine.</li> <li>Do not depart from the running device.</li> <li>Ensure the performance of inspections of compliance with work safety regulations by the head of the worksite on a monthly basis.</li> </ul>
Being hit by an object	Employees operating a brush cutter or a lawnmower and persons present in their vicinity are at risk of being hit by an object ricocheted off the work tool of the brush cutter or lawnmower upon its starting.	<ul> <li>Place the device in the course of starting it so that its work tool does not touch any surrounding objects or the terrain.</li> </ul>
Being hit by an object	Employees operating a brush cutter or a lawnmower and persons present in their vicinity are at risk of being hit by a ricocheted part of the work tool: - due to its improper use; - due to its damage; - due to the contact of its work tool with a solid obstacle.	<ul> <li>Always use a suitable work tool for the activity performed.</li> <li>In the course of work, perform regular inspections of the work tool.</li> <li>Prevent unwanted contact of the work tool with solid obstacles (stones, walls, tree stumps, trunks, fences, etc.).</li> </ul>
Stumbling, slipping, fall	Employees operating a brush cutter or a lawnmower and persons present in their vicinity are at risk of	<ul> <li>Keep the workplace clean and tidy.</li> <li>If possible, perform the necessary adjustments of the terrain prior to commencing the work.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
	<ul> <li>fall at the workplace as a consequence of uneven or untidy terrain;</li> <li>stumbling over various cables, hoses, tree trunks, branches, etc. constituting obstacles on thoroughfares that could cause stumbling;</li> <li>slipping in the slippery terrain.</li> </ul>	<ul> <li>Remove any obstacles from the workplace that could cause stumbling.</li> <li>Pay special attention during works with a brush cutter or lawnmower.</li> </ul>
Fall of trees or branches	Employees operating a brush cutter or a lawnmower and persons present in their vicinity are at risk of injury due to a fall of a tree or its branches in the course of tree cutting.	<ul> <li>Cut only trees with the trunk diameter of less than 10 cm.</li> <li>When cutting trees, prevent the presence of any other persons within the space endangered by the risk.</li> <li>When cutting trees, take into consideration the trunk thickness of the tree, its inclination, direction of the fall, saw disc quadrant for the safe cut, cut direction, etc.</li> </ul>
Using a device for any other purpose than intended	Employees operating a brush cutter or a lawnmower are at risk of injury due to the use of the device for a purpose other than intended.	Use the device only for the intended purpose.
Overloading of the device	Employees operating a brush cutter or a lawnmower are at risk of injury due to overloading the device above the parameters prescribed by the manufacturer.	Avoid overloading the device above the parameters set out by the manufacturer.
Fire	Employees present in the areas designated for them where fuels are stored without permission, for example for brush cutters and lawnmowers, are at risk of burns in the event of ignition of combustible substances.	Do not store fuels and devices in areas designated for the presence of persons.
Burns	Employees operating a brush cutter or lawnmower are at risk of burns in the event of ignition of fuels during their filling into the brush cutter or lawnmower:  - if the engine is running; - if the works are performed in the vicinity of open fire.	<ul> <li>Fill fuels in the tank only if the engine is not running.</li> <li>Do not fill fuels in the devices in the vicinity of open fire, do not smoke at the place of fuel filling.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
Burns	Employees operating a brush cutter or lawnmower are at risk of burns in the event of fire due to non-functioning fast-switch closure of the brush cutter belt.	Use only brush cutter belts with faultlessly functioning fast-switch closure.
Electrical current	Employees operating a brush cutter or a lawnmower are endangered by being struck by electrical current due to - unprofessional handling of the electrical device; - poor technical condition of the electrical device; - carrying out of prohibited handling of or failure to perform the prescribed manipulation with the electrical device; - damaged power cords; - damaged control elements of the electrical device.	<ul> <li>Ensure that works on electrical devices be only carried out by employees with adequate electrical engineering qualification.</li> <li>Keep all electrical devices in defect-free technical condition.</li> <li>Follow the regulations pertaining to the use of electrical devices, follow the manufacturer's instructions relating to the use and operation of the device.</li> <li>Do not use damaged power cords to supply electricity for the device.</li> <li>Make sure that individual control elements of the electrical device are not damaged.</li> </ul>
Failure to provide the first aid	Employees operating a brush cutter or lawnmower in solitude at remote workplaces are at risk of not being provided first aid in the event of their injury.	Do not work in solitude at remote workplaces.
Occupational diseases	Employees operating a brush cutter or lawnmower are at risk of pain in their arms, shoulders or back as a consequence of excessive strain of these body parts in the course of long-term work with a brush cutter or lawnmower.	<ul> <li>Pay special attention to the selection of employees, in particular in terms of their health condition.</li> <li>Arrange for regular medical examinations of employees and create suitable conditions for the observance of regular work and rest regime, in particular by following the prescribed time of work with the device per shift and regular interruptions of work in the form of rest breaks.</li> </ul>
Failure to use personal protective equipment at the workplace	Employees operating a brush cutter or a lawnmower are at risk of injury due to a failure to use the assigned personal protective equipment at the workplace.	<ul> <li>Equip employees with prescribed personal protective equipment at the workplace in a demonstrable manner, i.e. against signature.</li> <li>Acquaint employees with the use of the assigned personal protective equipment at the workplace.</li> <li>Use the assigned personal protective equipment at the workplace.</li> <li>Perform inspections of the use of personal protective equipment at the workplace on a continuous basis.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
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## **TRAFFIC ON THOROUGHFARES**

Vehicle accidents	Road traffic participants are endangered by  the vehicle hitting a solid obstacle;  a crash with another vehicle;  a crash with a person;  limited view of the driver;  limitation of the vehicle control;  the driver's injury during an accident;  the driver's micro-sleep;  driving of a motor vehicle without an adequate license;  a failure to secure or the release of a load;  a wheel falling off on the run;  bursting or ignition of tires on the run;  poor technical condition of the vehicle;  a failure to follow traffic regulations;  a hazardous condition of the road.	<ul> <li>Observe the provisions of the Road Traffic Decree.</li> <li>Do not consume alcoholic beverages or any other narcotics before driving a vehicle.</li> <li>While driving a vehicle, pay full attention to the driving and do not get distracted by any other activities.</li> <li>In the event of a vehicle accident with an injury, provide first aid to the injured person and call ambulance.</li> <li>Do not place any objects on or in front of the windshield of the vehicle that could obstruct the driver's view.</li> <li>Use freeze resistant wiper fluid in winter in order to prevent frost on the windshield.</li> <li>In the event of frost, be sure to clean the frost from all windows.</li> <li>Do not drive a vehicle if your driving capacity is impaired.</li> <li>Fasten your safety belt while driving.</li> <li>Observe the safety rest breaks prescribed by applicable laws.</li> <li>Do not allow any untrained person without professional qualification to drive the vehicle.</li> <li>Upon transferring a driver to another type of vehicle, acquaint the driver with operating that vehicle in accordance with the manufacturer's instructions.</li> <li>Before starting the drive, make sure that the cargo is safely secured and if necessary, verify during the drive that it has not been released.</li> <li>Upon each wheel mounting, it is necessary to verify that all screws and nuts have been tightened.</li> <li>Before starting the drive and, if necessary, also during the drive, inspect the condition of tires and replace them if needed.</li> <li>Before starting the drive, inspect the technical condition of the vehicle and remove any identified defects.</li> </ul>
Traffic accident	Road traffic participants are at risk of being injured by another vehicle in the course of carrying out repairs of their vehicle under impaired visibility conditions.	<ul> <li>Under impaired visibility conditions, do not enter and stay on the road without wearing a safety reflexive vest.</li> </ul>
Traffic accident	Road traffic participants are at risk of a traffic accident due to a poor technical condition of their vehicle.	<ul> <li>Perform inspections of the technical condition of vehicles at the prescribed terms and within the prescribed scope.</li> <li>Have all identified defects promptly removed.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
Injury in the course of minor repairs of vehicles	Employees carrying out minor repairs of vehicles are at risk of injury during these works.	<ul> <li>Follow the manufacturer's instructions relating to the given activity.</li> <li>Use undamaged tools during work.</li> </ul>
Spillage of cargo	Employees carrying out repairs of a loaded vehicle are at risk of the cargo sliding down.	<ul> <li>Do not carry out repairs of loaded vehicles if there is a risk of the cargo sliding down.</li> </ul>
Injury of transported persons	Persons transported on/in the cargo space of the vehicle or trailer are at risk of injury (fall, being hit, being buried under the spilled cargo, etc.).	<ul> <li>Apart from permitted exceptions, do not transport persons on/in the cargo space of vehicles or trailers.</li> </ul>
Fire of vehicles	Persons present at the place of a vehicle fire are at risk of burns by fire or by the subsequent explosion.	Equip vehicles with fire extinguishers.
Hazardous condition of the road	Road traffic participants are at risk of injury due to - sliding, falling of the vehicle from the road; - skidding of the vehicle; - late braking of the vehicle.	<ul> <li>Carry out repairs of roads in a timely manner.</li> <li>Perform timely and thorough winter maintenance of roads.</li> </ul>
Running over, knocking down or crushing a person	Persons involved in parking and manoeuvring of vehicles are at risk of injury in the case of spontaneous movement of vehicles due to a failure to safeguard them against movement.	Safeguard vehicles against accidental movement by the hand brake or by other means.
Crash with another vehicle	Persons involved in parking and manoeuvring of vehicles are at risk of injury in the case of vehicle crash due to - their manoeuvring under poor visibility conditions; - miscommunication of persons.	<ul> <li>If the driver, in the case of being navigated by a competent and properly informed person, looses sight of the navigator, the vehicle must be stopped immediately.</li> <li>If the driver does not have a sufficient view from the vehicle and the backing is not secured by another person, the driver must announce the start of backing the vehicle by means of a sound alert signal.</li> <li>Vehicles may only be manoeuvred at places safe for that purpose, taking into consideration their spatial parameters and the terrain condition.</li> <li>Hazardous places where persons could be injured or vehicles damaged need to be marked with appropriate traffic signs or warning signs.</li> <li>Acquaint the driver with the local situation.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
Vehicle hitting	Persons involved in manoeuvring of	<ul> <li>When other persons than the driver are involved in manoeuvring of vehicles, the communication method must be agreed among such persons.</li> <li>Prevent access of unauthorised persons at places designated for manoeuvring of vehicles (turning, backing, etc.).</li> <li>When other persons than the driver are involved in manoeuvring of vehicles, the</li> </ul>
an obstacle	vehicles are at risk of injury in the case of the vehicle hitting an obstacle.	<ul> <li>ommunication method must be agreed among such persons.</li> <li>Acquaint the driver with the local situation, including specification of the risks existing within the space of the vehicle manoeuvring.</li> </ul>
Vehicle being buried under spilled load, fall of a load onto the vehicle	Road traffic participants are at risk of injury due to the vehicle stopping at a place with a risk of the vehicle being buried under spilled load or of a fall of a load onto the vehicle due to the works performed.	<ul> <li>Do not stop at places where the vehicle obstructs safe traffic or where it is endangered by works performed in its vicinity.</li> </ul>

• Ensure the necessary repairs of the boiler room or its equipment.

#### **GAS BOILER ROOM**

Fire,	Employees operating gas devices in the	Ensure that the operation of the boiler room, including in particular
explosion,	boiler room or present in the boiler room	- launching of its equipment in operation;
ntoxication	are at risk of injury or health damage -	- operation of the boiler room equipment;
	burns, scalding, poisoning - due to a gas	- decommissioning of the boiler room equipment;
	leakage from the gas device and its	- safety devices;
	subsequent ignition or explosion.	- regulation devices;
		- measuring devices;
		- control devices;
		- air-release of the devices;
		- gas-release of the devices;
		<ul><li>air control;</li><li>untightness detection;</li></ul>
		- unagnitiess detection, - detector functioning inspection;
		- flame fuse functioning inspection;
		- emergency measures;
		- emergency operation;
		comply with the rules of operation of the boiler room.
		• Ensure that escape routes from the boiler room be permanently free and usable.
	<ul> <li>Supervise that there are no works performed in the boiler room not associated with its operation.</li> </ul>	
	Make sure that no unauthorised persons are present in the boiler room.	
		<ul> <li>Mark / label the boiler room door with a safety sign "Boiler Room - No Entry b' Unauthorised Persons".</li> </ul>
	<ul> <li>Detect the presence of carbon monoxide at the terms and in the manner prescribed by the rules of operation.</li> </ul>	
		<ul> <li>Ensure the performance of the prescribed inspections, reviews and professions checks of the boiler room at the prescribed terms, within the prescribed scope an in the prescribed manner.</li> </ul>
		<ul> <li>Ensure the removal of defects found in the course of inspections, reviews an professional checks of boiler rooms.</li> </ul>
		<ul> <li>Ensure the performance of the boiler room maintenance at the prescribed terms within the prescribed scope and in the prescribed manner specified in the rules of operation.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
		<ul> <li>Clean the boiler at least once a year.</li> <li>Ensure that the temperature of smoke gases does not fall below their condensation point.</li> <li>Ensure that the temperature of the return water in the hot water boiler does not fall below the determined level.</li> <li>Ensure that the emergency sensors be adjusted exclusively by the servicing company personnel.</li> <li>Ensure that the safety elements be adjusted exclusively by the servicing company personnel.</li> <li>Keep the boiler room clean, tidy and free of dust.</li> <li>Ensure the mandatory equipment of boiler rooms for their safe operation with the following: <ul> <li>local rules of operation;</li> <li>portable CO<sub>2</sub> fire extinguisher;</li> <li>stable fire extinguisher (only in the boiler rooms of category I. and II.);</li> <li>foam preparation or detector for the check of tightness of joints and connections;</li> <li>detector of the presence of heating gas (only in the boiler rooms of category I.);</li> <li>stack gas analyser (only in the boiler rooms of category I.);</li> <li>battery flashlight;</li> <li>first aid kit;</li> <li>stretcher (only in the boiler rooms of category I.).</li> </ul> </li> <li>If a breakdown of the operated device or another dangerous event occurs in the boiler room, immediately (in the case of risk of delay) decommission the device.</li> </ul>
Being struck by electrical current	Employees in the boiler room are at risk of being struck by electrical current as a result of contact with live parts of the electrical device.	<ul> <li>Ensure that works on electrical devices be only carried out by employees with adequate electrical engineering qualification.</li> <li>Protect the parts of the electrical device that are under voltage against contact and humidity.</li> <li>Inspect on a continuous basis the technical condition of electrical devices and remove any identified defects.</li> <li>Avoid prohibited handling of electrical devices.</li> </ul>
Stumbling, slipping falls during walking	All employees present in the boiler room are at risk of - stumbling as a consequence of untidiness;	<ul> <li>Keep the workplace clean and tidy.</li> <li>Appoint employees responsible for cleaning in the boiler room.</li> <li>Keep the floor in the boiler room dry and clean.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
	- slipping on wet floor; - insufficient lighting, etc.	<ul> <li>Remove any obstacles from thoroughfares that could cause stumbling (e.g. covers, lids, cables, hoses, etc.).</li> <li>Ensure sufficient lighting of the boiler room.</li> </ul>
Failure to use personal protective equipment at the workplace	Employees operating the boiler room are at risk of injury due to a failure to use the assigned personal protective equipment at the workplace.	<ul> <li>Equip employees with prescribed personal protective equipment at the workplace in a demonstrable manner, i.e. against signature.</li> <li>Acquaint employees with the use of the assigned personal protective equipment at the workplace.</li> <li>Use the assigned personal protective equipment at the workplace.</li> <li>Perform inspections of the use of personal protective equipment at the workplace on a continuous basis.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures
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## **PRESSURIZED CONTAINERS - STABLE**

Being hit by parts of the device  Being hit by	Employees operating stable pressurized containers and persons present in their vicinity are at risk of being hit by the device after its destruction caused by an explosion.  Employees operating stable pressurized	<ul> <li>Use the devices only for the purposes and under the conditions for which they are intended.</li> <li>Follow applicable regulations, including the manufacturer's instructions for use of the device.</li> <li>Ensure the performance of prescribed checks, inspections, reviews and tests of the devices and removal of any identified defects.</li> <li>Maintain clear labelling of operational and maximum overpressure of the stable pressurized containers on their pressure gauges.</li> <li>Ensure proper performance of zeroing of the pressure gauges.</li> <li>Adopt measures excluding damage of the stable pressurized containers in the course of works performed in their vicinity.</li> <li>Secure the stable pressurized containers placed in the open space against manipulation by unauthorised persons.</li> <li>Ensure safe supply of all substances and forms of energy, their storage and use</li> </ul>
the used substance or energy	containers and persons present in their vicinity are at risk of being exposed to the used substance or energy caused by its unsuitable supply, storage or use.	
Falls from height	Employees operating / repairing stable pressurized containers and persons present at elevated workplaces / using ladders for their activities are endangered by missing or insufficient protective tools against fall from the height.	<ul> <li>Maintain protective tools against fall from the height in undamaged and safe condition.</li> <li>Maintain ladders in a proper technical condition.</li> <li>Perform training of employees regarding work safety in the course of work or ladders.</li> </ul>
Scalding	Employees operating stable pressurized containers and persons present in their vicinity are at risk of scalding due to incorrect handling / incorrect work procedures used for the device.	<ul> <li>Follow applicable regulations, including the manufacturer's instructions for use of the device.</li> <li>Appoint an employee responsible for safe operation of the stable pressurized containers and demonstrably acquaint them with the rules of operation instructions and manuals for use.</li> </ul>
Fire	Employees present at the site of fire are at risk of being injured by the fire and the fouling and could be deprived from the	<ul> <li>Hold training of employees on fire risks and the related fire prevention.</li> <li>Check the expiry dates of fire extinguishers once a year.</li> <li>Do not block escape routes with any materials or items.</li> </ul>

Hazard	Who is endangered by what	Hazard reduction measures	
Injuries by electrical	possibility of escape from the endangered area.  Employees operating, maintaining and repairing stable pressurized containers	<ul> <li>Hold safety training of all employees operating stable pressurized containers so that they meet the qualifications of personnel pursuant to Section 3 of Decree</li> </ul>	
current	and employees appointed to perform other works on stable pressurized containers are endangered by the contact with live parts of the electrical device.	<ul> <li>No. 50/1978 Coll., on professional qualifications in electrical engineering.</li> <li>Maintenance or repairs of electrical devices to be performed exclusively, save for absolutely unavoidable cases, when the devices are disconnected from power supply.</li> <li>Perform inspections of the electrical devices at the prescribed terms and within the prescribed scope.</li> </ul>	
Stumbling, slipping, falls during walking, climbing down or up	Employees operating stable pressurized containers and employees present in their vicinity are at risk of stumbling due to untidiness, uneven terrain, insufficient lighting, slipping on icy surface, on wet floor, while descending stairs, ladders, etc.	<ul> <li>Inspect the tidiness at the workplace on a continuous basis, ensure the removal of any identified defects.</li> <li>Appoint employees responsible for tidiness of the workplace.</li> <li>Remove any obstacles from thoroughfares that could cause stumbling (e.g. covers, lids, cables, hoses, etc.).</li> <li>Ensure sufficient lighting of the workplace.</li> <li>Inspect on a continuous basis the condition of staircases and ladders, ensure removal of any identified defects.</li> <li>In winter season, remove ice coating in a timely manner and sprinkle anti skid material.</li> <li>Keep the floors dry and clean.</li> <li>Obstacles on thoroughfares, which cannot be removed, must be properly marked with safety colours.</li> </ul>	
personal containers ar vicinity with equipment at the workplace the workplace containers ar vicinity with protective equipment at the workplace containers ar vicinity with protective equipment at the workplace containers are vicinity with protective equipment at the workplace containers are vicinity with protective equipment at the workplace containers are vicinity with protective equipment at the workplace containers are vicinity with protective equipment at the workplace containers are vicinity with protective equipment at the workplace containers are vicinity with protective equipment at the workplace containers are vicinity with protective equipment at the workplace containers are vicinity with protective equipment at the workplace containers are vicinity with protective equipment at the workplace containers are vicinity with protective equipment at the workplace containers are vicinity with protective equipment at the workplace containers are vicinity with protective equipment at the workplace containers are vicinity with protective equipment at the workplace containers are vicinity with protective equipment at the workplace containers are vicinity and vicinity and vicinity are vicinity and vicinity and vicinity are vicinity and vicinity and vicinity are vicinity a	Employees operating stable pressurized containers and persons present in their vicinity without prescribed personal protective equipment are at risk of being exposed to the consequences of explosion or fire of the device or the work environment.	<ul> <li>Equip employees with prescribed personal protective equipment at the workplace in a demonstrable manner, i.e. against signature.</li> <li>Acquaint employees with the use of the assigned personal protective equipment at the workplace.</li> <li>Use the assigned personal protective equipment at the workplace.</li> <li>Perform inspections of the use of personal protective equipment at the workplace on a continuous basis.</li> </ul>	

	Hazard	Who is endangered by what	Hazard reduction measures		
CEQUENCEDO					

## **SEQUENCERS**

Being struck by	Employees operating the device	•	Ensure regular reviews.
electrical		•	Make sure that works be carried out only by trained and qualified personnel.
current			Trake sare that works be carried sat only by trained and qualified personnen

## **WESTERN BLOTS**

Contamination	Employees operating western blots	Do not use a lancet jointly with other persons.
by biological material		<ul> <li>Do not use a lancet after its expiry date.</li> </ul>
material		Store at the laboratory temperature (0°C - 40°C).
		<ul> <li>Dispose of used lancets in the manner prescribed for hazardous waste.</li> </ul>
		<ul> <li>Carry samples in protective gloves, wash hands thoroughly after manipulation</li> </ul>
		avoid mouth pipetting.
		Do not eat or drink during tests.
		<ul> <li>Avoid spilled splashes and aerosols.</li> </ul>
Being struck by	Employees operating the device	Ensure regular reviews.
electrical current		<ul> <li>Make sure that works be carried out only by trained and qualified personnel.</li> </ul>

# **MICROSCOPE**

Contamination by biological material	Employees working with a microscope	<ul> <li>Avoid touching biological material with bare hands.</li> <li>Decontaminate any contaminated parts according to applicable laboratory procedures.</li> </ul>
Burns	Employees operating the device	<ul> <li>Do not touch the lamphouse during illumination and shortly after its end.</li> <li>Make sure that the lamphouse is cooled before replacing a bulb.</li> </ul>
Being struck by electrical current	Employees operating the device	<ul> <li>Ensure regular reviews.</li> <li>Make sure that works be carried out only by trained and qualified personnel.</li> <li>Always connect cables to the corresponding clamps.</li> <li>Do not remove cable covers.</li> </ul>

#### **DISINFECTION OF SURFACES**

Hazard	Who is endangered by what	Hazard reduction measures
Infection	Employees in the course of disinfection of surfaces	Use protective gloves
Impacts of chemical substances on the skin	Employees in the course of disinfection of surfaces	<ul> <li>Use protective gloves and other protective equipment, limit contact with skin to the minimum.</li> <li>Get acquainted with and observe the safety data sheet.</li> </ul>
Exposure to chemical substances through inhalation	Employees in the course of disinfection of surfaces	<ul> <li>Ensure sufficient ventilation.</li> <li>Limit contact with skin to the minimum.</li> <li>Prevent application of disinfection preparations on hot surfaces.</li> </ul>
Fire, explosion	Employees in the course of disinfection of surfaces	<ul> <li>Avoid using combustible products as disinfection preparations on large surfaces.</li> <li>Ensure sufficient ventilation.</li> <li>Prevent application of disinfection preparations on hot surfaces.</li> </ul>

#### **HEALTH CARE FACILITY**

#### TAKING OF BIOLOGICAL MATERIALS IN A HEALTH CARE FACILITY

Stabs, cuts with a needle	Employees in the biological materials	course	of taking	•	During all operations where skin integrity is being or has already been impaired, communication with body cavities is being performed or non-physiological entry into the organism is made, employees are required to use a sterile protection mask and sterile gloves.
				•	When taking biological material, employees are required to use rubber or PVC gloves - to be used only once!
				•	follow the prescribed work procedures.
Contamination by biological material				•	During all operations where skin integrity is being or has already been impaired, communication with body cavities is being performed or non-physiological entry into the organism is made, employees are required to use a sterile protection mask and sterile gloves.
				•	When taking biological material, employees are required to use rubber or PVC gloves - to be used only once!
				•	Follow the prescribed work procedures.
				•	Do not clean the used tools and instruments, in particular those contaminated by blood, without prior decontamination by disinfection preparations with virucidal effects.
				•	Dispose of disposable syringes and needles as a whole, without separating them.
				•	All health care professionals are required to observe strict personal hygiene rules - trimmed hair, beards, fingernails cut short and trimmed, do not wear any jewellery or watches, do not wear artificial nails.
				•	Disinfect your hands after each contact with an infectious volunteer, biological material, used laundry; use preferentially disposable materials for wiping your hands.
				•	The prerequisite for work performance at specific workplaces is the vaccination against viral hepatitis B.