



Laboratory manual for users of Park Innovaare (PiA)

1. Basic rules for laboratory users

1.1 Conduct in the laboratory

Every tenant/company is responsible for ensuring that their employees are familiar with the rules of conduct and have undergone the necessary training or basic instruction.

Article 6 of the Swiss Labour Act (822.11 BG Labour Act ArG) states:

Article 6

Obligations of employers and employees

- ¹ The employer is obliged to take all measures necessary to protect the health of employees which, based on experience, are necessary, applicable according to the state of the art and appropriate to the conditions of the business. Furthermore, the employer must take the necessary measures to protect the personal integrity of employees.
- ² In particular, the employer shall design the company's facilities and work processes in such a way that health hazards and excessive strain on employees are avoided as far as possible.
- ^{2bis} The employer shall ensure that employees are not required to consume alcohol or other intoxicating substances in the course of their professional activities. The Federal Council shall regulate the exceptions.
- ³ The employer shall involve employees in health protection measures. Employees are obliged to support the employer in implementing health protection regulations.
- ⁴ Regulations shall determine which measures are to be taken for health protection in the workplace.

(Original in Swiss German Guidance, SECO November 2006)

Park Innovaare reserves the right to conduct periodic audit rounds together with tenants to verify compliance with legal requirements. The basic idea behind this is to jointly fulfil legal requirements and enable a wide variety of tenants to coexist.

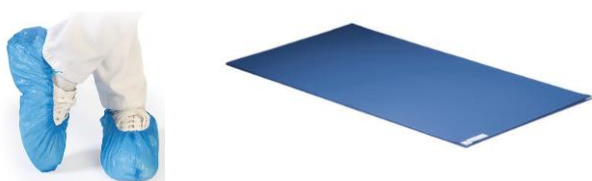
1.2 Wearing PPE in laboratory and non-laboratory areas

The tenant is responsible for specifying the PPE to be worn in the laboratory. Depending on the hazard, employees must be adequately protected. Outside the PiA laboratories, one enters directly into the hygiene non-laboratory zone; laboratory coats should therefore not be worn outside the laboratories.

Disposable gowns and simple protective goggles are available for visitors, if necessary.

1.3 Shoe covers and dirt mats

Depending on the hazard level, it is advisable to wear overshoes in laboratories or to install a dirt-control mat in the entrance area. These measures should be considered in particular in laboratory areas where, under the hygiene concept, there is no mixed zone between the laboratory zone and the non-laboratory zone.



Contaminated work clothing, overshoes and protective gloves must not be worn outside the laboratory.

1.3.1 Shoe covers

Certainly not the most practical method, as overshoes have to be put on and taken off every time one enters or leaves. In addition, a "changeover zone" would have to be marked in the entrance area, for example with coloured marking tape.

1.3.2 Dirt-Control Mats

There are different dirt mats according to the existing hazard and risk of carryover. If necessary, select the right product with the suppliers.

Recommendation by type of laboratory use

- | | |
|-------------------------|---|
| Physical laboratories | - none |
| Chemistry laboratory | - dirt-control mat |
| Biological laboratories | - overshoes (a hygiene changeover zone must be defined) or a dirt-control mat for BSL2 biological laboratories. |

2. Laboratory Equipment

Additional laboratory equipment such as fume cupboards, source and point exhaust ventilation systems, recirculating cooling units and other items must be requested through Park Innovaare.

The planning will be coordinated with Park Innovaare, with the tenants sharing the costs according to the rental agreement.

2.1 Laboratory Safety Equipment

The following safety equipment is located in and around the laboratories at Park Innovaare.

- Eye wash stations (in the laboratory)
- Personal shower (in the laboratory)
- Alarm button (in the corridors)
- Floor plan with safety equipment (at both exits, west/east)



Eyewash station by the sink



Emergency shower above the entrance door

2.1.1 Use of eye wash stations

(procedures translate from German-reference documents Broen)

Application

The shower should not come into direct contact with the contaminated eye or the area around it. The black rubber guard on the shower serves only as protection against impact injuries. Optimal rinsing effect is achieved at a distance of approx. 15 cm between the eye and the shower head. The diameter of the spray cone at this height is approx. 8 cm. It is recommended to hold the eye open with both hands during use. The water jet should be directed from the outside (towards the nose) onto the eye so that foreign matter can flow out along the nose.

The red dust cover prevents contamination of the outlet openings by dust or other particles in the air. It is automatically folded away when the eye wash is activated by the flushing jet and must be folded back again after use.

In all cases, seek medical attention after the initial intervention.



First aid determines whether you will be able to see it or not. Remove foreign objects.

Carefully remove foreign objects from the eye with a handkerchief. However, leave any foreign objects that are stuck in place and go to an ophthalmologist immediately.

Rinse your eyes immediately.

After an accident involving corrosive solutions, rinse your eyes immediately for at least 15 minutes. Use water, milk or lemonade for this. The eye must be open during rinsing.

See an ophthalmologist

As a rule, see an ophthalmologist immediately for eye injuries and seek treatment.

Source: Suva (Schweizerische Unfallversicherungsanstalt)

2.1.2 Use of the Emergency Shower (Personal Shower)

Emergency showers should only be used with due care, as the amount of water involved can cause major damage to equipment and furnishings. With a recommended shower duration of 15 minutes, this can quickly amount to 1,000 litres of water.

In the event of incidents and contamination of the entire body, especially the abdomen and leg areas, there is no alternative to full initial intervention using the emergency shower.

Activate the emergency shower by pulling down the operating handle. - Remove contaminated clothing.

➤ Periodic inspection of eyewash stations and emergency showers is carried out by Facility Management.

2.2 Safety cabinets, chemical cabinets

As a matter of principle, hazardous substances, chemicals and other items should only be stored in suitable cabinets and storage facilities. Flammable solvents should only be stored in tested and fireproof cabinets.

Strongly oxidizing, fuming highly concentrated acids and bases should not be stored in steel cabinets, if possible, unless these are approved for these substances.

2.3 Gas Leak Detection System

When using special gases such as H₂, CO₂, O₂ and liquefied gases, a gas detection system may need to be installed. Please take this into account during laboratory planning and assess it by means of a risk assessment.

The use of gases in laboratories must be reported to PiA so that the fire brigade can be informed in the event of a building alarm.

2.4 Standard Gases in the Laboratories

Nitrogen and compressed air are available in the laboratories. In the event of ventilation failure, the gases are shut off automatically and the safety valves are closed.

3. Handling hazardous substances

3.1 Hazardous Substances Inventory

Hazardous substances inventory lists must be prepared showing which hazardous substances are stored in the laboratories and in the building.

Park Innovaare may request these periodically; responsibility rests with the laboratory tenant.

3.2 Incidents / Accidents

Incidents must be reported immediately, and the laboratories must be secured accordingly and protected against unauthorised access.

Initial Intervention in the Case of Minor Hazards and Small Quantities

- Spilled liquids can be absorbed using absorbent mats or a powder-form binding agent.
- Absorbent mats are absorbent porous fleeces that are resistant to many chemicals.
- Granular binding agents, such as Florideal, are highly suitable for absorbing oils.

DENSORB® Chemikalienbindemittel Vlies Matten, Economy Single, light, 40 x 50 cm, 200 Stück
Artikelnummer: 17501986



For Larger Quantities

- Secure the incident area
- Call in the PSI fire brigade (during the day)

The Park Innovaare reporting process must be followed.

3.3 Accidents

Accidents in the general area must be reported to Park Innovaare.

3.4 Handling of solvents and chemicals in the laboratory

For flammable and health-hazardous liquids, the maximum container size permitted in the laboratory is 3 litres for breakable containers and 5 litres for non-breakable containers.

3.5 Laboratory storage quantities of solvents and chemicals

The storage quantity of flammable liquids (solvents) in the laboratory must not exceed 100 litres. The maximum storage quantity depends on the built-in safety cabinet for flammable liquids.

3.6 Maximum transportable quantity of chemicals in the goods lift

30 Liters of flammable liquids may be transported in the goods lift.

4. What to do in the event of an alarm

- When leaving the workplace, office and laboratory doors must be closed
- Safe State in the Event of an Alarm
 - When an alarm sounds, the laboratory must be brought into a safe state:
 - Switch off heat sources
 - Stop feeds
 - Leave stirrers and cooling systems running
 - Close doors and windows
 - In addition, in bio-laboratories: switch off centrifuges and open flames; leave all other equipment (incubators, flow benches, etc.) running.
 - Secure data, documents and valuables
 - Do not use the lift
 - Remain at your workstation if you are not in danger and your assistance is not required.
- Evacuation of the Building / Floor
 - When the evacuation alarm sounds, employees must proceed immediately to the assembly point:
 - Take with you: keys, personal belongings, valuables, ID cards, medication, clothing, rain protection
 - Check: Have all colleagues heard and followed the alarm?
 - Clarify: Who is missing? Where might the missing person be?
 - Report: Missing persons and any risks present at your workstation or arising from unattended operation.

5. Hazard and other signs

Hazard pictograms (GHS), dangerous goods labels, prohibition signs, warning signs, mandatory signs and emergency signs must be affixed to laboratory door signs as appropriate.



5.1 Door labels

In coordination with PiA, all laboratories must be labelled with the laboratory number, type of laboratory and contact details including telephone numbers, supplemented by any relevant hazard warnings and instructions.

A: Chemielabor

377		
Syntheselabor		
Gruppe:		Tel.:
KOPAS:		Tel.:
Laborchef:		Tel.:
Gefahren:		Vorschriften:
		

B: Analytiklabor

520		
Laserlabor		
Gruppe:		Tel.:
KOPAS:		Tel.:
Laborchef:		Tel.:
Gefahren:		Vorschriften:
		

6. Hygiene Concept / Hygiene Zones

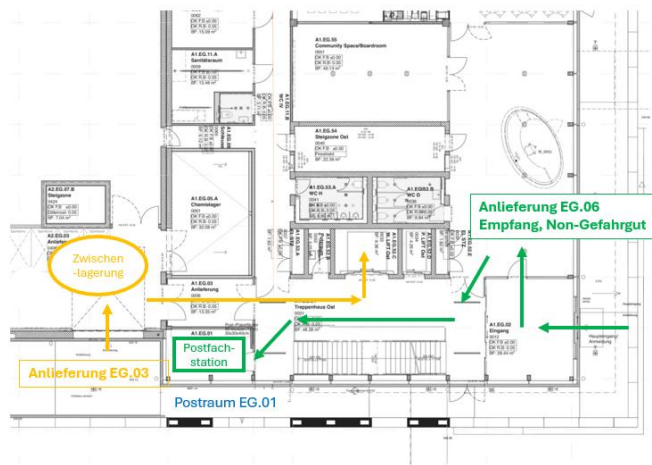
In the PiA laboratory area on the first floor, there is only a direct transition from the laboratory zone to the non-laboratory zone; there is no mixed zone. It is therefore important to minimise any risk of carrying hazards over. A brief risk assessment should be carried out for each laboratory to identify the relevant risks. **For safety reasons, and to ensure controlled ventilation and restricted access, the doors to the laboratory rooms must always be kept closed.**

6.1 Flow of Goods in PiA

Goods are generally delivered via the delivery area on ground floor EG.03. Small parcels are deposited by Reception in the parcel collection station. Tenants are informed when goods consignments arrive.

Situation Warenfluss im EG – Wareneingang über Antlieferung und Empfang

Antlieferung Grosspakete, Palettenware, Gefahrgut und Postpakete non-Gefahrgut



Items are taken into the laboratories directly via the front goods lift by Reception. Wherever possible, goods should not be unpacked in the corridor.

Warenfluss Wareneingang Park Innovaare für die Mieter der Labore EG 10G



Warenfluss für Antlieferung Grosspakete, Palettenware, Gefahrgut und Postpakete, non-Gefahrgut in die Labore des PiA

6.2 Safe internal transport

Internal transports of hazardous substances must be carried out using safe, conductive transport trolleys. Individual bottles containing liquids must be transported in trays or secure containers.

6.2.1 Goods lift transport without accompanying persons

Larger quantities of dangerous goods, dry ice or liquefied gases should be transported without accompanying persons (no accompanying travel in the lift). Send the lift to the relevant floor and use a passenger lift or the staircase to reach the destination floor.

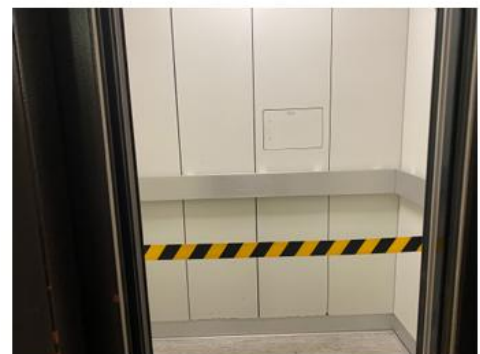
First, attach an information sign to the goods being transported:

**Warentransport ohne Personenbegleitung – bitte
Warenlift nicht benutzen,
der Empfänger ist gleich zur Stelle und nimmt die
Ware entgegen. besten Dank !**

**Transporting goods without accompanying
persons – please do not use the freight elevator;
the recipient will be there immediately to accept
the goods. Thank you very much!**

Second: access barrier using barrier tape:

Use the barrier tape as a barrier to block access to the goods lift.



Both the information sign and the barrier tape can be obtained from Reception.

7. People flow in PiA

7.1.1 People Flow in Standard Laboratories

In standard laboratories, such as physical laboratories and laboratories without hazardous substance handling, movement into or out of the laboratory zone and into the corridor (non-laboratory zone) is uncritical.

As a general rule, laboratory coats should not be worn outside the laboratories.

7.1.2 Chemical Laboratories

The use of dirt-control mats should be considered.

7.1.3 People Flow in the Biological Safety Level 2 Laboratory Area

The use of dirt-control mats should be considered. Each tenant operating laboratories with BSL2 status is required to prepare its own biosafety concept.

8. Supply and Disposal

The following diagram provides an overview of supply and disposal, including the interfaces indicating when the FS service provider, the tenant or the disposal company is in the lead.

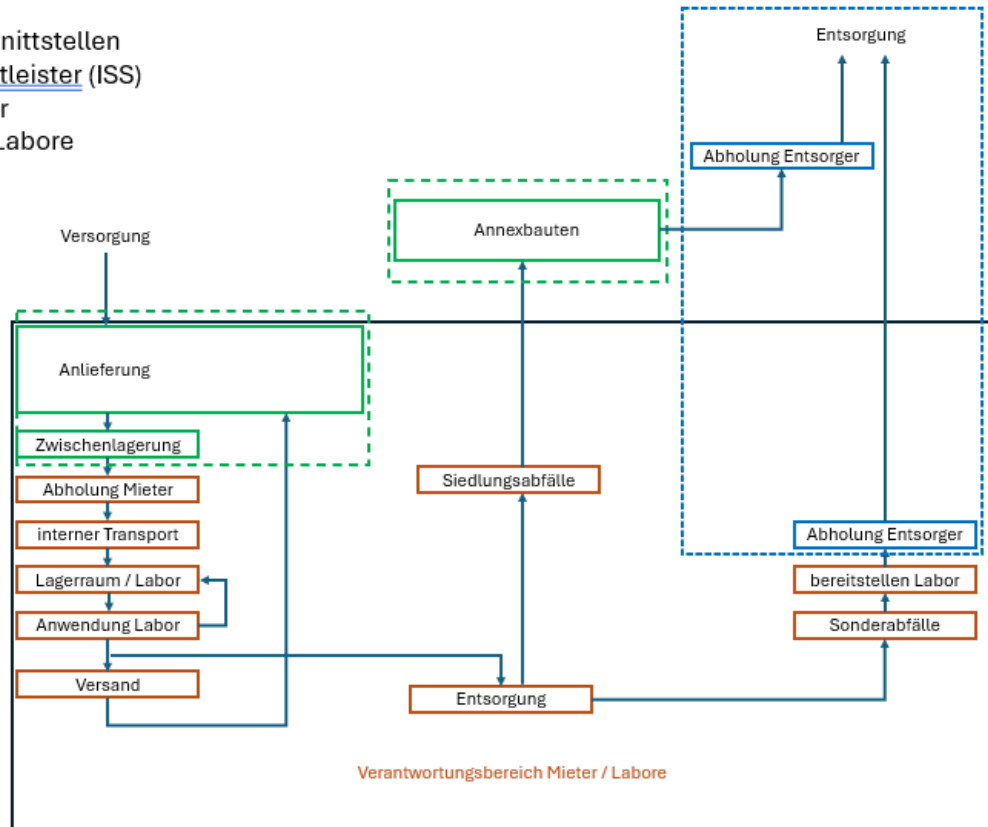
Gefahrstoffe für Laborbedarf - Versorgung & Entsorgungsprozess
Annahme: Entsorger Siedlungs- & Sonderabfälle ist dieselbe Firma

Prozesse und Schnittstellen

 = FS Dienstleister (ISS)

 = Entsorger

 = Mieter / Labore



8.1 Disposal

There are unloading points in front of the building for the disposal of waste from laboratories and offices.

General waste bins in laboratory and office areas are emptied by the cleaning staff responsible for routine cleaning and taken to the unloading points.

8.1.1 Municipal Waste

The following types of waste are collected

- General waste
- Cardboard / paper
- Glass
- Polystyrene
- PET

8.1.2 What Must Not Be Placed in General Waste Bins in the Laboratory

The general waste bin in the laboratory, located under the sink, is emptied by routine cleaning staff in accordance with the cleaning schedule.

Chemicals, batteries and other hazardous waste must not be disposed of via the general waste. Sharp objects such as syringes or glass must not be placed in general waste, as cleaning staff could be injured when emptying the bins.

8.1.3 Hazardous Waste / Laboratory Chemical Waste

Hazardous substances are collected by laboratory users and handed over directly to the disposal company. PiA coordinates collections, while the contracts are concluded between the tenants and the disposal company.

As soon as hazardous waste is generated in your laboratories, please notify Park Innovaare.

8.1.4 BSL2 Waste

BSL2 (biohazard) waste must be inactivated within the building; it may then be disposed of as general waste, provided no other hazardous waste is included.

Inactivation may be carried out chemically or by autoclaving.

8.1.5 Direct Handover of Laboratory Hazardous Waste to the Disposal Company

Laboratory hazardous waste is handed over directly between the tenant and the disposal company; at present there is no central, building-wide interim storage facility for hazardous waste.

8.1.6 VeVA and Waste Producer Number

VeVA (waste code)

It is the responsibility of the waste-producing business to define the type of waste. The waste codes are selected together with the disposal company, which also prepares the consignment notes and hazardous waste labels for transport.

Waste codes can be consulted online via VeVA. www.veva-online.admin.ch www.veva-online.admin.ch

Waste Producer Number (Abgeberbetrieb Nummer)

Each tenant must obtain its own waste producer number. A small-quantity arrangement may, where appropriate, facilitate handover to the disposal company; this must be clarified and organised directly by the tenant with the disposal company.

8.2 Other Outgoing Goods

Goods and items for collection should be collected by post, freight forwarders or couriers as promptly as possible. Hazardous substances must be packed and made available in dangerous-goods-compliant UN packaging.

9. Storage of Hazardous Substances

9.1 Storage in the Laboratories

If hazardous substances are used in laboratories, they must be stored in suitable cabinets when not in use.

Where required, the laboratories can be retrofitted with hazardous substances storage cabinets; procurement is arranged by PiA through the laboratory contractor.

For acids and bases, use cabinets fitted with spill trays and ventilation.

For flammable liquids or solvents, use safety cabinets equipped with spill trays and connected to the exhaust air system. These are typically F90 cabinets with a fire resistance rating of 90 minutes.

In solvent cabinets, the shelves must be designed in tray form so that they can hold at least the volume of the largest individual container present plus 10%.

9.2 Liquid Gases

Liquid gases must be stored in the corresponding containers / Dewars.

9.3 Dry Ice

Dry ice is used primarily for cooling sample shipments. Packages that still contain dry ice must be stored in a well-ventilated place, preferably in the fume cupboard if kept in the laboratory. Empty packages can be disposed of / handed over via Building Services.

9.4 Compatibility Storage Table

Storage incompatibilities must be observed; this applies to all locations where hazardous substances are stored.

Generelle Zusammenlagerung von gefährlichen Stoffen

Grundsätze:

- Die Schutzmassnahmen bei der Lagerung von Gefahrstoffen sind auf den gefährlichsten Stoff auszurichten.
- Die Zusammenlagerung von Stoffen, die in gefährlicher Weise miteinander reagieren können, ist nicht erlaubt.
- Eine Voraussetzung für die sichere Lagerung von Stoffen ist die Kenntnis und die Erkennung von gefährlichen Stoffen. Dazu dienen einerseits die Gefahrensymbole (Transportklassierung, Gefahrstoffklassierung) und andererseits die Gefahrenhinweise (H-Sätze).
- Sind die Symbole und Warnhinweise auf der Verpackung oder dem Sicherheitsdatenblatt unklar oder geben keinen klaren Hinweis auf die Gefahren, die von diesem Stoff ausgehen können, so wenden Sie sich an eine Fachperson oder an die zuständige behördliche Fachstelle.

Stoffeigenschaften	ADR/SDR Transport-Kennzeichnung	GH/CLP-Kennzeichnung	Lagerklasse	1	2	3	4.1	4.2	4.3	5	6.1	6.2	7	8	9	10/12	11/13	NG
Explosive Stoffe			1															
Verflüssigte und unter Druck stehende Gase			2															
Entzündbare Flüssigkeiten			3															
Entzündbare Feststoffe			4.1															
Selbstentzündliche Stoffe			4.2															
Mit Wasser entzündbare Gase bildende Stoffe			4.3															
Brandfördernde Stoffe, organische Peroxide			5															
Giffige Stoffe			6.1															
Anreizunggefährliche Stoffe			6.2															
Radioaktive Stoffe			7															
Ätzende und korrosive Stoffe			8															
Übrige Flüssigkeiten			10/12															
Übrige Feststoffe			11/13															
Nichtgefahrenstoffe (NG)	(z.B. Textilien, Verpackungsmaterial)		NG															

		Oxidizing	Flammable	Corrosive: ACID	Corrosive: BASE	Health hazard / toxic
Oxidizing						
Flammable						
Corrosive: ACID						
Corrosive: BASE						
Health hazard / toxic						

See in the document "Lagerung gefährlicher Stoffe» Leitfaden für die Praxis der Kantone:



LEGEND		
Not Compatible	Store according to SDS Section 7 and 10	Compatible

10. Cleaning

Routine cleaning, including laboratory cleaning, is commissioned through PiA. Scope in accordance with the tenancy agreement.

10.1 Access to the Laboratories.

Access to the laboratories for routine cleaning staff must be ensured for cleaning purposes.

10.2 Special Cleaning

For the cleaning of entire laboratories, a special cleaning service can be called in; this cleans all surfaces and disinfects them where required.