Annex 13   
Safety during the cleaning of laboratories by the cleaning service

**This template was compiled on the basis of operating instructions for the cleaning of laboratories at the Institute of Chemistry – Organic and Physical Chemistry at the Free University of Berlin and must be adapted to the situation in the particular plant.**

1. Background

Certain microorganisms trigger off diseases and many chemicals are harmful. Chemicals can, for example, be toxic, carcinogenic or highly corrosive. Many chemicals are absorbed easily through the skin or release vapours which can cause damage to the health if inhaled. Other chemicals ignite very easily.

1. Identifying dangers

**2.1 Safety symbols**

There are various categories of safety symbol. A distinction is made between:

* Prohibition symbols
* Warning symbols
* Instruction symbols
* Emergency action symbols
* Information symbols
* Fire-fighting symbols

In addition, there are symbols for hazardous chemicals. The SUVA brochure on safety symbols[[1]](#footnote-1) explains all the symbols and the labelling of hazardous chemicals.

**2.2 Hazards due to equipment**

Cables and hoses attached to equipment can be very important for correct functioning. If a cable or hose does not function correctly, the equipment may become damaged or chemicals could even escape and react in a dangerous way.

**2.3 Hazards due to glassware**

Broken glassware leaves behind sharp-edged splinters. These can go unnoticed for a long time, especially in places which are difficult to access (e.g. under workbenches).

1. Protective measures and rules for cleaning laboratories

For your own protection, adhere strictly to the following instructions.

1. Do not touch containers yourself – even if they are empty. The same applies to culture dishes or culture vessels containing microorganisms. **Only work on the surfaces to be cleaned if they have been cleared completely.** Inform your line managers if the surfaces to be cleaned in a laboratory are constantly obstructed.
2. **The working surfaces of the laboratory benches are disinfected and cleaned by the respective users themselves.**
3. **Always avoid direct contact with the water used for wiping.**
4. If you discover that liquids (chemicals or cultures of microorganisms) have been spilled onto the surfaces to be cleaned, stop cleaning unless laboratory personnel who have appropriate expertise and are present during cleaning have confirmed to you explicitly beforehand that this does not pose any risk to you.
5. Do not remain in rooms in which you discover the penetrating **smell of chemicals**, unless laboratory personnel who have appropriate expertise and are present during cleaning have assured you that there is no danger. In case of uncertainty, contact your managers or the laboratory personnel present.
6. Do not touch any **equipment, including cables and hoses**. Instead, only work in the proximity of lines in the presence of and after consultation with laboratory personnel with appropriate expertise.
7. **Do not empty any waste containers containing broken glass or chemicals.** Handle **waste containing broken fragments** with care. Note that broken glass which has been swept up and put into a waste bag can pierce through the bag unless appropriate precautions have been taken.
8. Do not empty any waste containers which containmicrobiological waste.Contact your managers or the Biosafety Officers.
9. The **cleaning agents** you use also **contain chemicals**. Only use these agents in accordance with the instructions. Obtain separate advice from your line managers regarding possible dangers arising from the use of these agents (pay attention to the safety data sheet).
10. During **pregnancy** you should not be exposed to any infectious microorganisms. Nor should you be exposed to certain chemicals, which may be very dangerous in the first few weeks. That means that you must no longer work in rooms in which there might be hazardous substances. For this reason, inform your line managers of the start of a pregnancy without delay, so it can be established what work you can continue to do. (The requirements of the Maternity Protection Ordinance (Mutterschutzverordnung / MuSchV) will be observed).
11. **Eating, drinking, smoking, the taking of snuff and the application of make-up are forbidden** in the laboratories.
12. After work, wash your hands with soap and water. Care for your hands by applying a moisturizing cream. This also applies whenever you take a break from you work, e.g. a coffee break. Follow the recommendations regarding protection of the skin, cleaning of the skin and skin care.
13. Also follow the leaflet *Measures to prevent infectious diseases transmissible by blood*.
14. First aid

### **4.1 First aid after contact with microorganisms**

1. Remove contaminated clothing (including underwear) immediately and do not use again until it has been disinfected and cleaned.
2. Wash an open wound, let it bleed if possible and immediately disinfect with PVP iodine solution (e.g. Betaisodona oral antiseptic). After that, keep moist for more than 10 minutes by repeated application.
3. If splashes enter the eye, use the eye-wash stand to rinse thoroughly. Then wash with a 5% solution of PVP iodine in water.
4. If pathogen-containing material enters the mouth, spit it out immediately.
5. Injuries must be reported immediately to the relevant line managers and the Biosafety Officers by way of the *Report sheet for laboratory incidents*.
6. If internal contact – e.g. swallowing, inhalation, incorporation through injuries – occurs, a doctor must be consulted immediately.

### **4.2 First aid after contact with chemicals**

1. If chemicals or unknown solutions come into contact with skin, rinse the affected areas immediately and thoroughly under running water for at least 10 minutes. If there is no injury, use soap and water. Remove saturated clothing immediately. Keep a complete set of spare clothing ready in your locker so you can change your clothes if necessary. If chemicals have entered the eye, use the eye-wash equipment which is available in every laboratory. Contact a doctor in consultation with the person in charge.
2. If you sense sudden reddening, itching or burning on your skin, stop working immediately and wash the affected areas of skin thoroughly, but without scrubbing, with soap and water, as described above.
3. After thorough rinsing and washing, contact your line managers, the Safety Officers or, if they are not available, any person present in the building. Further advice regarding emergencies and telephone numbers can be found by any telephone. Do not apply any ointments or anything similar to your skin. (When they are absorbed they can also draw any chemicals present into the skin with them.)
4. Allow cuts to bleed for a moment. Find someone to help you. Then dress the wound. First-aid material can be found in all rooms displaying a sign with a white cross on a green background on the door.
5. Training

It is stipulated that you must be instructed verbally, on the basis of these operating instructions, before taking on the cleaning service in laboratories where you are exposed to possible dangers from chemicals or microorganisms.

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1. Sicherheitskennzeichnung, SUVA, First edition: January 1985, Revised edition: February 2015, Order from: www.suva.ch/waswo Tel. 041 419 58 51 Order number 44007.d  
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