

Checklist

Chemical safety in laboratories



CLP

Introduction

This checklist is meant to be a tool for principal investigators (PIs), lab managers and other responsible persons to ensure that hazardous chemicals are handled in a safe manner and that KI rules and Swedish and European law and regulations are followed. More detailed information about the different issues is available on Laboratory pages on *KI Internwebben*. For questions see contact information in the end of the document.

Chemicals – general

- Do you introduce new group members and students to KI laboratory safety rules and routines?
- Do you visit KI Laboratory safety pages on *KI Internwebben* frequently?
- Have your group members taken courses in laboratory safety?
- Have you got emergency strategies in case of spill/accident or fire?
- Do you know the name of the “departmental chemicals representative” (kemikalieombud)?
- Do you know the name of the departments “supervisor for flammable goods” (föreståndare brandfarlig vara)?
- Do you have a “chemicals inventory taker” (kemikalieinventerare) in your group (responsible for KLARA register)?
- Are all chemicals (also own mixtures) labelled with content (substances and concentrations) and hazard pictograms (CLP)?
- Do you have a yearly cleaning day where you clean you lab and storage places and discarded old chemicals?
- Do you handle any chemicals that require medicinal checks?
- Do you have pregnant or breast feeding persons at your workplace (special requirements according to AFS 2007:05)?
- Do you have spark-free (EX-classified) electrical equipment in areas where it is a risk for formation of explosive atmosphere (where you handle flammables)?

KLARA product database

- Are all of your chemicals (including gases) registered in KLARA?
- Do all group members know how to find SDS in KLARA for the chemicals used in the lab?
- Have you attached the latest SDS from the supplier for your chemicals in KLARA?
- Did you perform this year's chemical inventory in KLARA?
- Have you taken out relevant lists from KLARA (flammables, CMR, medicinal checks etc)?
- Have you considerate using KLARA bar codes?

Risk assessment

- Have all your group members taking a course in risk assessment (or equivalent)?
- Have you performed risk assessments for all methods that may involve chemical risks?
- Do you have a routine for reviewing risk assessments in your lab?
- Have you informed everyone about the risks (also cleaning staff, animal facility staff, core facility staff etc)?
- Do you keep risk assessments in correlation to handling/methods?

CMR chemicals and cytostatic drugs

- Have you performed CMR investigations (on a method level) to evaluate if you can use a less hazardous product (or method)?
- Have you conducted risk assessments for handling of CMR and cytostatic drugs?
- If necessary, have you set up a CMR register for all persons that may have been exposed to CMR chemicals (names, substance, exposure level, date etc)?
- Do you have handling instructions?
- Do you have emergency procedures?
- Do you have a special lab for CMR/cytostatic drugs?
- Have you made sure that no pregnant or breastfeeding persons are handling CMR chemicals and cytostatic drugs?

Permits

Do you have chemical products (substances, mixtures or kit) that consists of:

- Group A (>0,1%) or Group B (>1%) chemicals?
- Mercury (>0,1%)?
- Substances listed in Appendix XIV to Reach (>0,1%)?

Storage

- Do you store chemicals with different properties (acids, bases, flammables, poisons etc) in separate storage places?
- Are corrosive chemicals stored below waist?
- Are all storage places connected to the external ventilation?
- Are all storage places labeled with correct GHS symbol?
- Is the last chemical list (from KLARA) posted each storage place?

Flammables

- Do you store all your flammable liquids in a ventilated fire proof cabinet/room?
- Do you put all flammable liquids back in the cabinet after work?
- If store cold, do you have a spark free (EX-classified) fridge?
- Do you handle flammables in ventilated hoods/benches?

Personal protection

- Do you handle hazardous chemicals in workplaces connected to the external ventilation (hood, benches)?
- Are fume hoods and fume benches placed in a corner of the lab?
- Do you use personal protection (gloves, mask, goggles etc) as stated in section 8 in the products SDS?
- Is everyone in the lab wearing lab coat (fire proof)?
- Is everyone in the lab introduced to good glove practice (to minimize contamination)?
- Does everyone take off the lab coat before entering the office, lunch room or other common spaces?

Chemical waste

- Do you follow KI laboratory waste rules (fractions, labelling, storage, and packaging)?
- Do you follow KI rules for chemical disposal to sewage?
- Do you store chemical waste correctly (same rules as for chemicals in general)?

Internal transports

- Have you risk assessed transports of hazardous chemicals?
- Do you transport hazardous chemicals in a safe manner (basket, box, absorbing material)?
- For transportation of dangerous goods between campus Solna and campus Huddinge, do you use the "Scientific Sample Shuttle"?

Liquid nitrogen and other gases

- Do you handle liquid nitrogen according to KI rules?
- Have you performed a risk assessment for the specific conditions in your lab/method?
- Do you store liquid nitrogen in a safe manner (ventilation, alarm etc)
- Are gas cylinders secured and upright?
- Do you have routines for inspections of gas cylinders and connections?
- Are permanent gas tubes labelled according to CLP?
- Are flammable gases stored in fire proof cabinets?

Good luck!

For questions contact.

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