



# **A security advice for working in a science lab**

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for the SALiS project

# Introduction

- Safety regulations are very important for working in a lab.
- Everyone has to take care for the safety for themselves and other persons.
- Misbehaviour must be dealt with by excluding the person from the lab.
- The following slides will give an introduction on how to work in a lab and how to perform experiments safely.

# Content

- Safety regulations in lab
  - Lab coat
  - Safety glasses
  - Long hair
  - Gloves
  - Suitable clothing
  - Eating and drinking
  - Behaviour in a lab
  - Need to know
- Safety regulations for experiments
  - Chemicals in a lab
  - Materials in a lab
  - Olfactory test



# Safety regulations in a lab

# Lab coat

- Wearing a lab coat is absolutely necessary.
- You have to close the coat with the buttons. Wearing an open coat is dangerous e.g. while walking in the lab.
- Your own clothes are made secure by wearing a closed lab coat.
- A lab coat also prevents contamination of your clothes.



# Safety glasses

- Wearing safety glasses is absolutely necessary.
- Protecting the eyes is very important because a small contamination could injure the eyes for a life time.
- People who are wearing glasses also have to wear also safety glasses over their glasses or prescription safety glasses.



# Long hair

- Persons with long hair (men or women) have to take care while working in a lab.
- For their own safety it is necessary to have the hair covered or tied back.
- Working with long hair can be very dangerous e.g. while working with a bunsen burner. Hair will burn very quickly and produce serious awful injuries.

# Gloves

- For some experiments gloves are necessary e.g. for corrosive, toxic or allergenic chemicals.
- If you are not sure whether to wear gloves or not, do not hesitate to ask your teacher or lab adviser.





# Suitable clothes

- For staying safe in a lab wear long clothes made of 100% cotton.
- Also wear normal, closed shoes (e.g. sneakers) in a lab, no high-heels, flip-Flops or sandals.
- Do not wear clothes which expose skin because e.g. acids could injure this “clothes-free” area.



# Eating and Drinking

- Eating and drinking in a lab is not allowed at any time, for any reason!
- If you want to eat or drink something then leave the lab and do it outside of the lab.
- It is necessary that you wash your hands after working in the lab before you eat or drink anything!
- Chewing gum and candies are also not allowed.
- Also smoking is prohibited in a lab.

# Behaviour in a lab

- Do not run in a lab.
- Work safely and neatly.
- Always clean up spills and keep the bench clean.
- Be always sure that you know what you are doing.
- Before and after working in a lab, wash you hands with soap and water (minimum 30 seconds).



# Need to know

- Be informed about the chemicals which you need for experiments and their hazards.



- If something is unclear or you have questions never hesitate to ask your teacher or lab adviser before you start with the work.
- Never take a risk for yourself or others.
- Work safely at all times!!!



# Safety regulations for experiments

# Reflection

- You have had much information about how to behave oneself in a lab.
- All the information is very important and make working in a lab safer.
- Now you got some more important information for making experiments more safely!

# Chemicals in a lab

- Never use or touch materials or chemicals without the OK of your teacher or lab adviser!
- Never start experimenting without the OK of your teacher or lab adviser!
- Give attention to the hazard symbols and know what they mean.
- Never eat or drink any chemicals!!!
- Use small portions of chemicals.
- Find out the correct way to dispose of unused chemicals or chemical waste.

# Materials in a lab

- Materials must stand on the table safely, e.g. not near the edge or so they can be knocked over.
- Do not have papers or books on the table while working with a bunsen burner.
- After the work is finished, clean the equipment, dispose of all chemicals and clean the table.



# Olfactory test

- Sampling or tasting chemicals is not allowed at any time!
- Sometimes olfactory tests are allowed and can be used to identify a product. But you have to be informed about the thing you will test! Some chemicals are hazardous. Do not make a smelling test with hazardous chemicals!!! Always check with your teacher or lab adviser.
- The olfactory test is a special test where you fan an aroma to your nose. Do not place your nose completely over a product and smell it directly.



# Think safety!

- Stay and work safely in a lab.
- Enjoy working in a lab.
  
- Thank you for your attention!!!