

Safety Instructions for Laboratory Work*



Institute of Process Engineering

* Modified version of the instructions from
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Safety Regulations for Laboratory Work

Students must follow the

- Operating Instructions for the handling of dangerous substances

- Material safety data sheet from the manufacturer

(melting point, boiling point, flash point, etc.), toxicity, health effects, first aid, reactivity, storage, disposal, protective equipment, and spill-handling procedures

- Instructions given during the laboratory work about the apparatus, process, etc.



MATERIAL SAFETY DATA	
SECTION 4 - FIRST AID	
not:	Flush with large amounts of water for at least 15 minutes. Do not
not:	Wash affected area gently with soap and water. Skin cream or ointment
not:	Do not induce vomiting; drink plenty of water.
not:	Remove affected person to clean fresh air.
not:	**If any of the symptoms persist, seek medical attention immediately.
SECTION 5 - FIRE FIGHTING MEASURES	
not:	Non-combustible
not:	Use extinguishing media appropriate to the surrounding fire.
not:	None
not:	Wear full bunker gear including positive pressure self-contained breathing apparatus.
SECTION 6 - ACCIDENTAL RELEASE MEASURES	
not:	Avoid creating airborne dust. Follow routine housekeeping procedures. If sweeping is necessary, use a dust suppressant. Do not use compressed air for clean-up. Personnel: approved respirator. Avoid clean-up procedures that could result in dust release.
SECTION 7 - HANDLING AND STORAGE	
not:	Limit use of power tools unless in conjunction with local exhaust ventilation. Frequently clean the work area with HEPA filtered vacuum or accumulation of debris. Do not use compressed air for clean-up.
not:	This product is stable under all conditions of storage. Store in a cool, dry place.

Behavior in Laboratory



- Food and drink are not allowed.
- Smoking is prohibited



- Order and Cleanliness has to be maintained
- Unauthorized persons are not permitted
- Transportation routes and emergency exit must be kept clear
- Dangerous substances must be handled with care. Wear goggles and gloves were required
- Avoid skin contact with chemicals

Behavior in Pilot Plant

- **Do not operate** any equipment without introduction to the **specific safety guidelines** by the pilot plant instructor
- Be aware of **Endurance Limits**. (maximum operating load)
- While leaving, **Check** all residues are eliminated or not.
- In case of skin contact with dangerous chemicals, wash with water quickly
- **Protect your eyes** from chemicals / biologicals
- In case of accidents, **follow the emergency protocol**



Behavior in DANGER (Emergency Protocol)

1. First **HUMAN** protection, other things are next.
2. Do not **PANIC**, plan your actions quickly
3. **FIRST AID** for the injured
4. If necessary **LEAVE** the laboratory
5. **INFORM** laboratory PERSONNEL
6. **ALERT** your brain for safety, because consequences of reaction towards emergency is also dangerous

Major Accidents

FIRE



Personal Injury



Electrical Failure



FIRE ESCAPE PLAN

In The Event of an Emergency Stay Calm

Report the Emergency  Call the emergency services by dialling **0-999**
What is your name?
What happened?
Where are you?
Is anyone hurt?

Immediate action  Move away from any danger
Protect the air

Get to safety  Move to safety following normal exit routes

In The Event of a Fire Stay Calm

Raise the alarm  Use the alarm to alert everyone
Call the Fire Service: dial **0-999**
What is your name?
What happened?
Where are you?
Is anyone hurt?

Get to safety  Leave the building by the nearest exit
DO NOT use escalators
DO NOT use lifts
DO NOT use lifts

Report to Assembly Point  Proceed directly to your assembly point at **Main Fire Opposite Main Entrance**



Find Emergency Exit of YOUR Building

 Fire alarm call point	 Safe refuge	 Escape direction
 Fire extinguisher	 Assembly point	 Evacuation chair
 Fire telephone	 Fire exit	 Lift
 Fire aid point	 Escape routes	

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Building: The Government Hotel Floor 5
Highgate Road
London, W11 2AB

Project Ref: DR12895
Plan Date: 21/07/16
Revision: 1.0



To operate an extinguisher:

Pull

Aim

Squeeze

Sweep



④ **S**WEEP nozzle side to side

Know your extinguisher

Use the correct extinguisher

(Check your own extinguisher's label for detailed instructions.)

<http://county-fire.com>

Follow indicated Escape Ways



CONTACTS

- Police / Polizei 0 – 110
- Fire / Feuerwehr 0 – **112**
 - Ambulance / Rettungsdienst*
 - Police*
- Security (OVGU) 11150
- Technical Staff (OVGU) 11118
- Doctor / Arzt
 - Universitätsklinik** für Unfallchirurgie,
Building 60, Tel: **0-67-15575**
 - Doctor Office** - Schölner / Pralow / Lampe
Breiter Weg 252, Magdeburg. Tel: **0-391- 6208360**
Building 09, Tel: 11150

... And

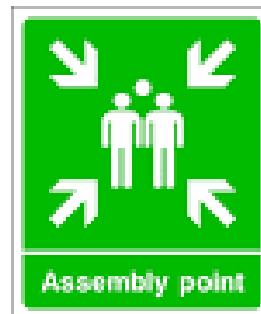
KNOW the location of **FIRST AID KITS** kids in your building / floor



KNOW the location of **STRETCHERS** in your building / floor



KNOW the **ASSEMBLY POINTS** next to your building



Strictly Follow All Safety Guidelines !

- Good common sense is required.
- If you are not sure how to handle a particular situation, **ask your laboratory or pilot plant instructor for advice.**
- **DO NOT TOUCH ANYTHING WITH WHICH YOU ARE NOT COMPLETELY FAMILIAR WITH!**
- It is always better to ask questions than to risk harm to yourself or damage to the equipment.

Also available (German Safety Guideline)

http://www.fvst.ovgu.de/vst_media/Bilder/Institute/IVT/Sicherheitskonzeption.pdf

<http://www.kostic.niu.edu/labsafetyrules.html>