

Type 1 Laboratories

General conditions:

- Handling of flammable liquids in open areas must only take place in a fume cupboard.
- Flammable liquids may only be present in connection with in-progress experiment set-ups.
- Flammable liquids must be stored in well-ventilated chemical cabinets (zone 2).
- Fixed gas-consuming devices (e.g. gas chromatographs) must be connected to a pressurised gas installation approved by Technical Services.
- Bunsen burners must be inspected before use. Defective Bunsen burners must not be used.
- Compressed gas cylinders (e.g. spare cylinders) must be stored in designated storage rooms.
- Compressed gas cylinders that are frequently used in the laboratory can be stored in the laboratory. If the compressed gas cylinders are used at intervals of more than 2 weeks, they must be stored in the designated storage rooms.

Special conditions for work in type 1 laboratories

- A maximum of 1 litre of flammable liquid per experiment may be handled in open areas.
- Maximum size of open containers is 1 litre.
- Flammable gas may only be used thus:
- Manual bottling of max. 1 litre flammable gas at 1 atm to the container/balloon in the fume cupboard. The gas must be consumed immediately after bottling so that the explosive atmosphere is removed as quickly as possible. There must be no open flames or hot surfaces in the fume cupboard, and ventilation must be running at full strength.
- In case of ventilation failure, stop the experiment and limit the emission (e.g. by putting a lid on the container and closing the fume cupboard door).
- Experiments can run unattended, also at night and weekends.

Zone classification:

Unclassified throughout the laboratory.

Chemical cabinets are classified as zone 2 within the cabinet.

Type 2 Laboratories:

General conditions:

- Handling of flammable liquids in open areas must only take place in a fume cupboard.
- Flammable liquids may only be present in connection with in-progress experiment set-ups.
- Flammable liquids must be stored in well-ventilated chemical cabinets (zone 2).
- Fixed gas-consuming devices (e.g. gas chromatographs) must be connected to a pressurised gas installation approved by Technical Services.
- Bunsen burners must be inspected immediately before use.
- Compressed gas cylinders (e.g. spare cylinders) must be stored in designated storage rooms.
- Compressed gas cylinders that are frequently used in the laboratory can be stored in the laboratory. If the compressed gas cylinders are used at intervals of more than 2 weeks, they must be stored in the designated storage rooms.

Special conditions for work in Type 2 laboratories

- No more than 5 litres of flammable liquid per experiment may be handled in open areas.
- Max. size of open containers is 5 litres.
- Flammable gas may only be used thus:
 - Temporary manual bottling of max. 1 litre flammable gas at 1 atm to the container/balloon in the fume cupboard. The gas must be consumed immediately after bottling so that the explosive atmosphere is removed as quickly as possible.
 - In case of ventilation failure, stop the experiment and limit the emission (e.g. by putting a lid on the container and closing the fume cupboard door). Disconnect the power to the fume cupboard's power outlet (manually at the circuit breaker).
- The experiment manager or a person instructed by the experiment manager must monitor the experiment – also at night and weekends!

Zone classification:

Unclassified throughout the laboratory.

Chemical cabinets are classified as zone 2 within the cabinet.