

The extraction rooms have fume cupboards that are equipped with gas detectors that are approved for work with ether etc. The cupboards are marked "**Etherskab**" ("**Ether cupboard**"). These cupboards stand out in that they are equipped with a gas detector that sounds an audible alarm and automatically cut electricity in the cupboard immediately before explosive concentrations are reached.

When the alarm sounds, you can open the cabinet door completely, thereby increasing the exhaust and eliminating the vapors quickly. You should discontinue the work and leave the room while a working environment representative is contacted to find out why the alarm sounded.

Requirements for electronics that are placed in the ether cupboard are the same as apply to other fume cupboards classified in zone 2.

Fume cupboards approved for work with ether

section	room no.	cupboard no.
ENVS / EMBI	C1.13	19/25 19/26
	C 1.41	19/02 19/04
	C1.49	19/12
	C2.09	19/61 19/62
	C2.13	19/56
EMBI	B 2.01	2 cupboards
BIOS	B 2.05	2 cupboards

Operating the ether alarm

Prior to initiating work with ether, make sure the ether alarm is on. The control box is located on the middle on the center shelf above the sink or by the door. The green light should be lit as should the light panel, which should indicate 0 to 1. If it does not, call a technician (there is not off switch on the control box).

The light panel shows the concentration of the vapors as a percentage of the explosion limit (100 % = explosion limit). Audible alarm (1st alarm level) will sound at 20 % and power will be cut (2nd alarm level) at 41 %.

Some laboratories have two fume cupboards with separate sensors hooked up to the same control box. In this case, the box has a so called channel switch that works in the same way as the light panel, but both the right and left alarms are always active regardless of the channel switcher's position.

One or two alarm fields for each sensor are located at the bottom (each fume cupboard), each having two red lights and two push buttons. The top red light lights up at the first alarm level, and both lights light up at the second alarm level.

The top push button must be operated in order to reset the alarm after activation, and this will turn on the power to the cabinet. However, this cannot be done till the cause of the alarm has been removed, i.e. the ether vapors are gone.

It is necessary to open the clear plastic cover in order to get to the press button, this is done by turning the two thumb screws.

The bottom push button (horn alarm) is used to reset the audible alarm at alarm level 1.

Controlling the ether alarm

The alarm must be checked twice a year in connection with measuring the air flow in the fume cabinet. This is done by holding a beaker with a small amount of ether up against the sensor, which is located on the side wall of the cupboard just above the bottom. At the same time, the electronics must be checked by the

technical department, as described in "Instruktionsbog for Gasmåle- og Alarmanlæg Type GZ900" from DOUTEC A/S, which is located in the GLP-room and in the technical department.