

Know how to spot a gas leak

You should check your dispensing systems every day for faults by checking that all nuts and seals are tight and listening for hissing sounds. If you suspect that a leak has occurred, you must put into operation emergency gas procedures immediately.

You can check whether gas cylinder or gas equipment is leaking by applying a weak ammonia free soap solution. Any frothing or bubbling indicates that gas is leaking. Frost or condensation on a cylinder, or where the 'O' ring on a cylinder connecting hose is missing or damaged, can also indicate a leak, as can loss of pressure on the regulator gauge when the gas is turned off. If you suspect a minor leak has occurred, report this to a manager immediately and ventilate the cellar, making sure that someone knows that you're going into the cellar and how long you are likely to take.

Dealing with a gas leak

Small gas leaks

A small gas leak may occur if, for example, a nut is not tightened or a gas seal is faulty. In this case, take the following steps:
first...

- ventilate the cellar by opening all doors and cellar flaps (make sure there are barriers around the open flaps)
- prevent anyone from entering the cellar.

then enter the cellar...

- tell someone that you are about to go into the cellar, why, and how long you think you will be there
- turn and close off the carbon dioxide or mixed gas cylinder valve
- if possible, isolate the problem by switching off the individual secondary regulator valve, or checking connections if the leak is upstream of the secondary valves
- spray the cellar floor with water (carbon dioxide is very soluble in water)
- when you return from the cellar, tell the person you informed earlier
- let someone know whether it is now safe to enter.
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If at any time you feel the effects of increased carbon dioxide concentration (feeling short of breath, breathing faster), leave the cellar immediately and call for assistance.

Major gas leaks

A major gas leak can be caused by plant failure, or by a pipe or bursting disc rupturing. A bursting disc is a quick pressure release system that ruptures if the pressure in the cylinder rises above a certain limit. It is designed to release the contents so that the cylinder itself doesn't burst. If a bursting disc ruptures, there will be a sudden loud noise and a plume of white vapour as the gas is released. Also, the cylinder may fall over.

If there is a major gas leak, take the following steps:

First...

- if you can do it without entering the cellar, turn off the gas supply.

Then ...

- inform all staff and evacuate the affected area
- call for assistance
- do not let anyone go into the cellar - under any circumstances - until you are sure it is safe to do so (emergency service personnel may enter if using self-contained breathing apparatus)
- open all outside doors and windows to ventilate the area
- close all doors to passages leading to any place where carbon dioxide could accumulate
- leave the cellar refrigeration switched on - the fans will help to disperse the gas
- if a bursting disc has ruptured, the cylinder surface temperature will be below freezing - do not touch a frosted cylinder without wearing protective gloves.

Medical emergencies

If a gas leak results in a medical emergency (ie, if someone has lost mobility or consciousness as a result of breathing a high concentration of carbon dioxide or nitrogen), take the following actions:

- call the medical and fire and rescue emergency services
- if the victim is in the cellar, do not go down to attend the victim - you may also be affected
- if the victim is not in the cellar, keep the victim warm
- apply artificial respiration if breathing has stopped

follow the instructions of emergency services personnel. .