

Data Sheet Beverage bar facilities

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2. General

Beer and other beverages are conveyed in beverage bar facilities via compressed gas. In general, only gases that are harmless from a food point of view, namely carbon dioxide (CO₂) or nitrogen (N₂) along with mixtures of the two gases, are permitted, whereby CO₂ is the most frequently used gas. CO₂ is a colourless and odourless gas that is heavier than air (1.5 times); concentrations of 4 vol. % in the air can lead to health problems (e.g. irritation of respiratory centre, dizziness, nausea), while concentrations of 8-10 vol. % and more can lead to loss of consciousness and death.

The employer is responsible for the following:

- as part of a hazard assessment, identifying the hazards that may result e.g. from the use of bar facility gases, and defining and implementing the correct protective measures,
- identifying the type, scope and intervals for recurring inspections,
- ensuring that inspections are conducted prior to start-up, along with recurring inspections, by a qualified person who has the required technical knowledge for performing such inspections on the basis of his or her professional training, job experience and recent professional activity,
- preparing operational instructions in an easy-to-follow form and language for employee training purposes

3. Protective and safety measures

Effective protective measures must be undertaken as a result of the hazard assessment in order to prevent the uncontrolled leakage of CO₂.

This includes the following measures:

- compressed gas containers must be standing and protected against falling over,
- compressed gas containers must be protected against dangerous heating,
- compressed gas containers may only be connected with the suitable tools,
- only approved, inspected and undamaged instruments (pressure reducers) may be used,
- only that number of compressed gas containers may be provided as have been connected for emptying,
- the warning sign W18 "Warning: Substances hazardous to health" and additional warning information must be affixed to the entrances of all rooms that are at risk for gas escaping from the bar facilities,
- sufficient natural ventilation must be warranted (ventilation opening min. 10% of room's floor space),
- where required, a technical ventilation system must be installed (air is exchanged at least twice per hour, fault display with warning light and horn, regular inspection of functionality),
- where required, gas warning systems must be installed by the qualified persons,
- regular safety-related inspections of the beverage bar facility must be performed by a qualified person (at least every two years),
- annual, documented training of employees

4. Cleaning and disinfection intervals

Beverage bar facilities must be cleaned and disinfected on a regular basis based on specific demand, so that beverages and base materials are not compromised. The specific demand will result from the contamination level of the beverage bar facility. It may increase e.g. due to reduced throughput, extensive idle time, higher storage temperatures, hose length and type of cleaning method. In the event contamination occurs prior to the expiry of the cleaning and disinfecting interval according to Table 1, intervals must be shortened or the cleaning and disinfecting method must be changed.

Contamination indicators:

- accumulations of any kind,
- non-typical odours, e.g. smell of vinegar, lactic acid smell at taps,
- other irregularities, e.g. mould on surfaces, cloudy appearance of otherwise clear beverages, beer slime on taps and keg connections

In addition, the beverage bar facility must be cleaned, at minimum:

- right before initial start-up,
- after the cleaning and disinfection intervals pursuant to Table 1,
- right before and after an interruption in service after one week,
- after each change in beverage types,

- once daily, any components that come into contact with beverages and air,
- connection parts, prior to each connection to the beverage or base material container

Table 1:

Beverage group ^a	Cleaning and disinfection intervals
Fruit juice, fruit nectar, fruit beverage	1
Still water (< g/l CO ₂ /carbon dioxide), alcohol-free beer	1-7
Beer	7
Wine, alcohol-free refreshment beverage with carbon dioxide	7-14
Base material, spirits	30-90

^a In the case of mixed drinks, the cleaning interval is based on the shorter period for the individual components.