

However, in Germany TRGS 510 applies as the basis for the storage of pressurized gas cylinders. The following principles must be observed (further details and requirements can be found in TRGS 510):

STORAGE (GefStoffV § 2, para. 6):

Storage is the retention of substances intended for later use as well as for the transport to others. Provisioning for transport is included as long as the transport does not take place within 24 hours after provisioning or within the following day.

STORES INDOORS (TRGS 510 No. 10.3, para. 1):

Rooms for storing compressed gas cylinders must be separated from adjacent rooms by fire-retardant components at least. Fire-resistant components are required if there is a risk of fire and explosion in adjacent rooms which are not intended for the storage of compressed gas cylinders.



The fire behavior of components as per DIN 4102 is to be considered as **FIRE-RETARDANT** in the sense of TRGS if duration time is 30 minutes at least (fire-resistance class F30).

The fire behavior of components as per DIN 4102 is to be considered as **FIRE-RESISTANT** in the sense of TRGS if duration time is 90 minutes at least (fire-resistance class F90).

Safety cabinets for compressed gas cylinders according to DIN EN 14470-2:

Compressed-gas cylinders may only be stored in workrooms if, e.g., they are stored in safety cabinets acc. to DIN EN 14470-2.

The classification of the fire resistance period has been defined in 4 types:

G 15 = ≥ 15 minutes

G 30 = ≥ 30 minutes

G 60 = ≥ 60 minutes

G 90 = ≥ 90 minutes

The DIN EN 14470-2 describes the design as well as test criteria for safety cabinets intended for the storage of pressurized gas cylinders at room temperature.

TRGS 526 / DGUV information 213-850 - Safe work in laboratories:

5.2.11.1 For reasons of fire prevention, compressed gas cylinders always have to be installed safely outside laboratories. The gases are to be fed to the work rooms via constantly technically tight, permanently installed pipelines. If this is not possible, the accommodation in safety cabinets acc. to DIN EN 14470-2 could be expedient.

All types of gases bear a risk in case of fire! The fire resistance period of the safety cabinet has to be determined by means of a hazard assessment based on the existing fire loads and the hazard potential of the gases to be stored.