

### Fire protection requirements according to the TRGS 510 / TRGS 800

#### 1. Storage indoors (TRGS 510, No. 12.3 Construction requirements):

- ◆ Walls, ceilings and doors of storage rooms have to be made from non-flammable construction (paragraph 1).
- ◆ Storage rooms above 1,000 liters (inflammable and extremely inflammable as well as inflammable above 10 tons) have to be separated fire-resistantly (F90 as per DIN 4102) from adjoining rooms (paragraph 2).
- ◆ Sump trays have to be impermeable to the stored liquids (paragraph 5).
- ◆ Storage rooms are not allowed to be used for other purposes (paragraph 8).

#### 2. Storage outdoors:

When storing outdoors hazardous substances storages do not have to be fire-resistant if:

- ◆ a sufficient safety distance of at least 10 meters to buildings can be maintained or
- ◆ an existing building exterior wall is fire resistant (F90 according to DIN 4102) or
- ◆ fire-resistant components of sufficient height and width between buildings and containers exists.

Exemption clause according to TRGS 510, no. 12.4.1 paragraph 2:

- ◆ According to a total storage quantity of more than 200 kg and below 1,000 kg a safety distance to surrounding buildings of at least 5 m has to be observed for movable containers. Regarding a total storage quantity from 1,000 kg a safety distance to surrounding buildings of at least 10 m has to be observed for movable containers.

### Definitions

#### 1. „Passive storage“

The term „passive storage“ is used for storage of hazardous substances in catalogue by not being opened during storage. Concerning the respective regulations on storage of hazardous substances this term is not applied anymore.

#### 2. „Active storage“

This term is currently used in TRGS 509. It is about „retention of flammable liquids with a flash point  $\leq 55$  °C in movable containers which can be filled or emptied within from more than 24 hours by using a firmly connected pipeline or hose line concerning storage location and can also be transported after filling and emptying“. It is all about opening of storage containers in catalogue.

### Basic requirements (extract)

Storage rooms have to be ventilated sufficiently. Ventilation has to ensure a constant 5-fold air exchange per hour and be effective near the ground. For exclusive storage of flammable liquids a 0.4-fold air exchange per hour is to be guaranteed.

### Classification of explosiv-proof zones

Zone	Fuel type	Occurance of explosive atmosphere, period of existence	Application
0	Gases, Fumes, Vapours	constant, frequent, over an extended period	Inside of tanks
1	Gases, Fumes, Vapours	occasional in standard operation (during decanting/filling)	filling / decanting
2	Gases, Fumes, Vapours	is not expected in standard operation, in case of deviation a short-term occurrence is possible	storing



For this purpose please observe our practical information on page 142!

