

LEGAL REQUIREMENTS FOR STORAGE AND DISPOSAL CONTAINERS (GERMANY)



The requirements for installation of storage containers for water-polluting, non-flammable substances, fire-resistant (formerly technical rules for flammable fluids TRbF AIII) and flammable fluids (ELH-fluids, formerly flammable fluids class AI, AII and B) are defined for Germany in the ordinance on Industrial Safety and Health (BetrSichV) of the technical rules for operating safety (TRBS) and the ordinance on Installations for the Handling of Substances Hazardous to Water (AwSV). The Vd-TÜV datasheet 967 for fuel systems is regarded as the state of the art and is to be observed. Building and fire protection regulations may also be applicable.

Approval

According to Germany ordinance on Industrial Safety and Health (BetrSichV), storage of fluids with a flash point above 55 °C does not require any approval. According to the BetrSichV, an approval is required for storage of more than 450 litres of flammable liquids. Installations for storage of flammable liquids with a total capacity of more than 10,000 litres require monitoring.

According to the German ordinance on Installations for the Handling of Substances Hazardous to Water (AwSV) specifies a reporting requirement for above-ground systems as of hazard level B. The hazard level is defined by the water

hazard class of the storage medium and the storage capacity (table of AwSV).

INFO



Rietbergwerke GmbH & Co. KG
Bahnhofstraße 55
DE-33397 Rietberg

Phone +49 (0)5244 983-200
behaeltertechnik@seppeler.de
www.seppeler.de

Capacity [m³]	Weight [t]	Water hazard class		
		1	2	3
< 0,22	< 0,2	Level A	Level A	Level A
≤ 1	≤ 1	Level A	Level A	Level B
> 1	≤ 10	Level A	Level B	Level C
> 10	≤ 100	Level A	Level C	Level D
> 100	≤ 1,000	Level B	Level D	Level D
> 1,000	> 1,000	Level C	Level D	Level D

General installation requirements

According to AwSV, systems have to prevent leakage of water-polluting substances. Systems have to be tight, stable and sufficiently resistant against mechanical, thermal and chemical loads to be expected.

Any leakage has to be identified quickly and reliably and leaking substances have to be retained. Operating-related occurring drip losses must be collected. The systems have to be installed on a suitably firm surface. A collision buffer is to be provided as necessary.

In the event of a malfunction, leakages must be withheld and disposed of correctly.

For double-walled containers, no collection trays are required. Otherwise, the following applies:

Mixtures potentially containing water-polluting substances leaking in case of damage have to be retained. The collection capacity of the storage space has to correspond to the maximum volume of the substances that may leak in case of malfunctions.

Installation

For systems with fire-resistant fluids, no clearances to buildings are required. For systems with flammable fluids, a clearance of 10 m to buildings has to be

observed if these are not sufficiently protected against fire (F90 according to DIN 4102). In case of indoor installation, walls, ceilings and doors have to consist of non-flammable materials. Between storage spaces and neighbouring rooms, fire-resistant (F90 according to DIN 4102) partitions are required. Ventilation has to permanently ensure at least 5-fold air exchange.

Inspection according to AwSV

According to AwSV, systems of hazard level B-D inside and outside of water protection areas require inspection prior to commissioning.

Recurring inspection every five years for:
Hazardous level facilities C and D, in protected areas B to D
Level B facilities, in protected areas A
Local authorities may specify further requirements. In the case of systems for flammable liquids (ELH-fluids), the inspection in accordance with the ordinance on Industrial Safety and Health (BetrSichV) must also be observed.

Operation

Storage containers may only be filled via a fixed pipeline connection with overfill protection. (Containers with a capacity of up to 25 m³ litres are an exception and may also be filled via an automatically closing discharge nozzle). Rietberg collection containers with filling funnel may be intermittently filled with low volumes

without overfill protection. Operating-related occurring drip losses must be collected.

Obligations of the operator

The operator is required to prepare a system description with monitoring, servicing and alarm schemes for definition of operating instructions specifying all measures required for operation. Rietberg containers do not require maintenance. However, containers and equipment have to be regularly checked for potential damage. The system may only be operated in proper condition. The leakage indicator and potential overfill protection require inspection according to the operating instructions.