



Hazardous Material - Warehouse Management

Nowadays, companies have to deal with a wide range of substances that are classified as hazardous. Hazardous substances are used in various areas of daily processes and workflows. The safe and sustainable handling of these substances is a top priority in order to ensure the health and safety of everyone involved in the company while also protecting the environment. Hazardous substance management must be well thought out, carefully planned, and extremely reliable in order to meet regulatory requirements, avoid legal consequences and liability risks, and make the work process highly efficient.

Industrial construction expansion and new construction projects in particular are subject to legal and increased requirements regarding hazardous substance management, which must be explicitly addressed and can be summarized as follows:

1. Structural requirements
2. Technical buildings services requirements
3. Storage requirements
4. Requirements of the respective property insurance

Hazardous substance – what does that actually mean? The definition of a hazardous substance can be found in the Hazardous Substances Ordinance (GefStoffV). Although this has been adapted to the European definition of a hazardous substance, it still covers a somewhat more general framework. In Germany, the CLP Regulation (Regulation on Classification, Labeling, and Packaging) of the Federal Environment Agency regulates what is declared as a hazardous substance. In most cases, hazardous substances are identified by an H-statement (Hazard Statement – a standardized safety warning for hazardous substances).

The H-statements are not always shown with their numbers on the label of the respective container. However, hazards are clearly described, such as “Harmful to aquatic life with long-lasting effects.” A substance is also considered hazardous if substances that meet the above definition are produced during its manufacture/use.



1. The structural requirements for the storage of hazardous substances typically include:
 - a Specially designed storage rooms or buildings that have pressure equalization vents, for example, and that comply with specific fire protection and safety standards.
 - b Compliance with floor requirements in accordance with WSG, floor drains, and retention devices to collect spilled or leaking hazardous substances.
 - c Labeling and signage of hazardous substance storage areas in accordance with applicable regulations.

2. The TGA requirements cover the technical equipment of a building that ensures comfort, safety, and functionality. In connection with hazardous substances, the following aspects must be considered:
 - a Fire alarm and extinguishing systems as well as gas warning systems for early detection of explosions and fires and for containment or extinguishing in the event of an outbreak.
 - b Adequate natural or technical ventilation systems to prevent the spread of vapors or gases.
 - c Air conditioning systems to control temperature and humidity in order to ensure the stability of certain hazardous substances.

As with the structural requirements, the exact building services requirements may vary depending on the type and quantity of hazardous substances, local regulations, and the specific requirements of the building, and must always be checked on a case-by-case basis.

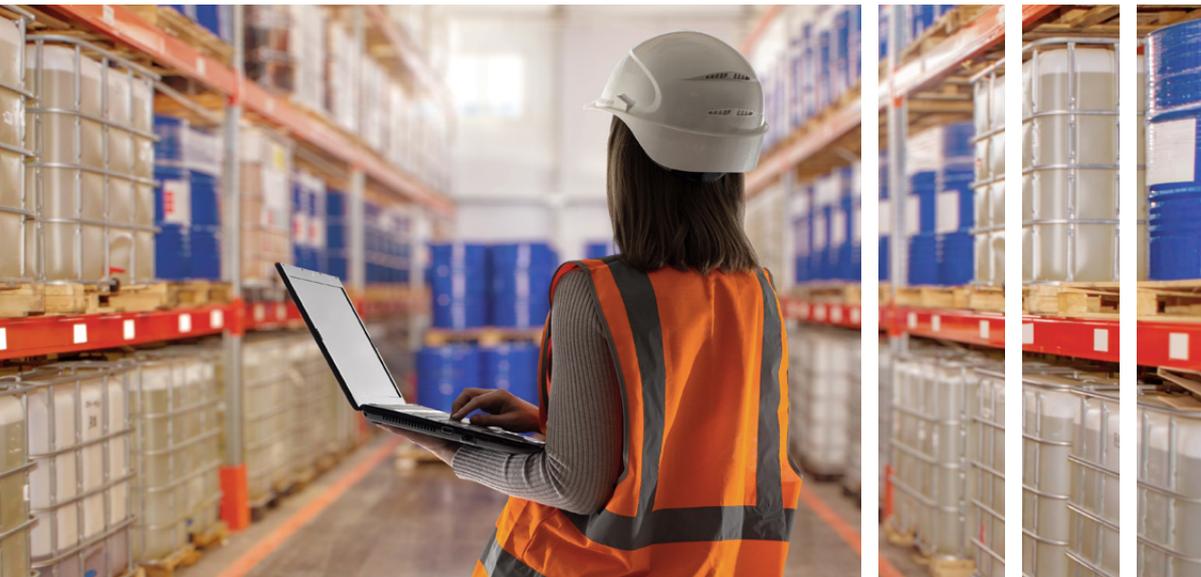


3. With regard to the storage requirements for hazardous substances, it should generally be noted that, regardless of the storage period, **any placement** of hazardous substances in any area is considered storage. The regulations for the storage of hazardous substances can be found in the "Technical Rules for Hazardous Substances" (TRGS 510), among other places. This set of rules contains requirements and recommendations for the storage of various types of hazardous substances, including liquids and gases. In addition to specifying the storage requirements for hazardous substances, TRGS 510 contains guidelines for storage in containers, storage rooms, and storage facilities, as well as for labeling and documentation.



"Modern and safe hazardous substance management must be very well thought out, carefully planned, and extremely reliable."

Florian Alexander,
Head of Logistics, IE Industrial Engineering Munich GmbH



4. If companies wish to store hazardous materials, they must observe and comply with the requirements of their insurance company to ensure that property insurance coverage is provided. The guidelines and standards to be observed are very often based on FM Global or VDS standards. These organizations often have specific requirements and guidelines for the storage of hazardous substances that differ from TRGS 510 in terms of fire safety precautions, building services requirements, storage options, and labeling. It is therefore highly advisable to contact an expert in hazardous substance and risk management and the relevant property insurer early on in the planning stages of expansion and new construction projects.

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CONTACTS

IE Industrial Engineering Munich GmbH

Paul-Gerhardt-Allee 48 | 81245 Munich | Germany
T +49 89 82 99 39 0 | muenchen@ie-group.com
www.ie-group.com

IE Industrial Engineering Zurich AG

Wiesenstrasse 7 | 8008 Zurich | Switzerland
T +41 44 389 86 00 | zuerich@ie-group.com
www.ie-group.com