



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 18265-2019

**Basic requirements of safety technology for enterprise
handling hazardous chemicals business**

危险化学品经营企业安全技术基本要求

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1 Scope

GB 18265-2019 is the Chinese national standard on basic requirements of safety technology for enterprise handling hazardous chemicals business. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 25 February 2019 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 November 2019. Classification: ICS , CCS C65. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the basic requirements for safety technology for enterprises handling hazardous chemicals business. This standard is applicable to the basic requirements of safety technology for the location selection, construction and safety facilities of dangerous chemicals warehouses and dangerous chemical stores of the enterprises handling hazardous chemicals business. This standard does not apply to automobile refueling and gas-filling stations, oil depots, dangerous chemical stores without physical display business premises, dangerous chemical stores engaged in online sales.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this standard.

GB 2894 Safety signs and guideline for the use

GB 12158 General guideline for preventing electrostatic accidents

GB 15603 Rule for storage of chemical dangerous goods

GB 18218 Identification of major hazard installations for dangerous chemicals

GB 30077 Requirements on emergency materials equipment for hazardous chemical enterprises

GB/T 37243 Determination method of external safety distance for hazardous chemicals production units and storage installations

GB 50016 Code of design on building fire protection and prevention

GB 50057 Design code for protection of structures against lightning The gas as listed in the Hazardous Chemicals Inventory and the Hazardous Chemicals Classification Information Sheet, whose hazard characteristics category includes flammable gases, category-1, category-2 gases.

4 Basic requirements for safety technology of

hazardous chemicals warehouse

4.1 Planning and location selection

4.1.1 The dangerous chemicals warehouse shall conform to the urban and rural planning of the region. The site shall be located on the windward side of the annual minimum frequency wind direction away from urban areas and residential areas.

4.1.2 The fire separation distance of hazardous chemicals warehouse shall be implemented in accordance with the provisions of GB 50016. The distance between hazardous chemicals warehouses and railways, as well as the distance between roads, radio-television facilities, oil and gas pipelines, power facilities shall meet the requirements of their corresponding regulations.

4.1.3 In addition to the requirements of 4.1.2, the explosives warehouse shall maintain a distance of at least 1000 m from the protection target. It shall also follow the requirements of GB/T 37243 to use the accident consequence method to calculate the external safety protection distance. When using the accident consequence method for calculation, it shall use the maximum storable dangerous chemicals to calculate the external safety protection distance.

4.1.4 In addition to the requirements of 4.1.2, warehouses involving toxic or flammable gases which constitute a major hazard of hazardous chemicals, shall be calculated according to the provisions of GB/T 37243, using the quantitative risk assessment method to calculate the external safety protection distance. In case of calculation by quantitative risk assessment method, it shall use the maximum storable dangerous chemicals to calculate

the external safety protection distance.

4.2 Construction requirements

4.2.1 The construction of dangerous chemicals warehouses shall be carried out in accordance with the provisions for layout, building structure, fire resistance rating, safe evacuation, fire protection facilities, electrical and ventilation in GB 50016.

4.2.2 The construction of explosives warehouses shall be carried out in accordance with the provisions for layout, construction and structure, fire

4.3.1 The electrical equipment with explosion hazard in the hazardous chemicals shall be implemented in accordance with the provisions of GB 50058. Battery vehicles, forklifts and other working tools used in explosion hazardous environments of hazardous chemical warehouse shall comply with explosion-proof requirements.

4.3.2 Lightning protection and anti-static of hazardous chemicals warehouse shall be carried out in accordance with the provisions of GB 50057 and GB 12158.

4.3.3 Hazardous chemicals warehouses shall be equipped with communication and fire alarm devices, communication equipment for external communication, which are ensured to be in the applicable state.

4.3.4 The hazardous chemicals warehouse which may emit flammable gases and toxic gases shall be equipped with corresponding gas detection and alarm devices in accordance with GB 50493 and interlocked with the fans. The alarm signal shall be transmitted to the 24 h attended location and set up an audible-visual alarm.

4.3.5 The hazardous chemical warehouse which stores flammable liquids shall be provided with anti-liquid flow measures. The hazardous chemical warehouse for highly toxic substances shall be equipped with ventilation equipment.

4.3.6 The hazardous chemicals warehouse shall establish a fully covered video surveillance system in the storage area.

4.3.7 Hazardous chemical warehouses, workplaces, safety facilities and equipment shall be provided with obvious safety warning signs in accordance with the provisions of GB 2894. The hazardous chemical warehouses that cannot be extinguished by water, foam, etc. shall be provided with a prominent mark at a suitable location outside the warehouse.

4.3.8 Hazardous chemicals warehouses shall be equipped with fire protection facilities and fire-fighting equipment in accordance with the provisions of GB 50016 and GB 50140.

4.3.9 Hazardous chemicals warehouses shall be equipped with corresponding protective equipment and emergency rescue equipment and materials in accordance with the provisions of GB 30077. They shall be guaranteed to be in good condition and convenient to use. business.

5.2.8 Shops operating organic peroxides, substances and mixtures that emit flammable gases in contact to water, self-heating substances and mixtures, self-reactive substances and mixtures shall meet the storage requirements of 4.2.8, 4.2.9, 4.2.10, 4.2.1.1, respectively.

5.2.9 Hazardous chemicals shall not be stored in the open air.

5.2.10 The layout of hazardous chemicals shall be reasonable. The requirements for contraindications shall be implemented in accordance with the provisions of GB 15603.

5.3 Safety facilities

5.3.1 The stocking warehouse's swing door shall be opened in the evacuation direction. Equipotential grounding wires shall be provided for swing doors and windows. The human body static eliminator facilities shall be provided outside the doors.

5.3.2 The electrical equipment in the explosion hazardous environment in the stocking warehouse shall be implemented in accordance with the provisions of GB 50058.

5.3.3 The power distribution boxes and electrical switches for the lighting facilities and electrical equipment of the stocking warehouse shall be installed outside the warehouse and grounded reliably. It shall be provided with over-voltage, overload, electric shock and leakage protection facilities; take measures against rain and moisture.

5.3.4 The stocking warehouse shall have facilities to prevent small animals from entering.

5.3.5 Hazardous chemicals stores shall be equipped with video surveillance equipment.

5.3.6 Hazardous chemicals stores shall be equipped with fire-fighting equipment such as fire extinguishers; their type and quantity shall be implemented in accordance with the provisions of GB 50140.