

Chapter 4 Storage of Chemical Substances

Note: Qualifications, etc. are required for handling of stimulants, stimulants' raw materials, narcotics, psychotropics, and specified poisonous substances. The handling is stipulated in laws and regulations. Follow relevant laws and regulations. Meanwhile, handling of explosives is regulated by the Explosives Control Act. Follow relevant laws and regulations. At the University, internationally controlled materials are handled as radioactive substances. Follow the method of handling radioactive substances of the University.

1. Storage of general chemical substances

Article 12 of the University Rules stipulates the storage of chemical substances as follows.

Article 12 of the Rules (Storage of Chemical Substances, etc.)

1. Chemical Substance Managers shall install a storage location dedicated to storage of the Chemical Substances in his or her Group's possession and implement necessary measures in preparation for possible disasters (e.g., earthquakes) or accidents, etc. to secure the storage location, prevent Chemical Substance containers from falling out of the shelves, and prevent damage due to contact with one another, etc.
2. Chemical Substance Managers shall regularly check the status of registration of poisonous substances and deleterious substances in YAKUMO and the quantity of inventory. Chemical Substance Managers shall implement measures (e.g., disposal) promptly for poisonous substances and deleterious substances that are unlikely to be used in the future.

Chemical substances must be stored in designated storage locations. Notably, measures to prevent falling of chemical substances and damage caused by contact, etc. must be implemented in the storage areas in preparation for an earthquake or accident. When a chemical substance is transferred to a different container, such as a sample bottle, make sure to indicate the name of the chemical substance, etc. Failure to do so may lead to disposal of chemicals by mistake or unidentifiable content later.

Store highly volatile chemical substances in a polyethylene bag, etc. For efficient and safe education and research, it is important to ensure *seiri* (sorting) and *seiton* (setting in order) of chemical substances.

Seiri (sorting): to establish a disposal standard, classify necessary and unnecessary chemical substances based on the standard, and dispose of unnecessary chemical substances

Seiton (setting in order): improve the storage so that necessary chemical substances are readily available when needed

Chemical substances that were not used for many years may have decayed. Dispose of them as unnecessary chemicals.

[Example of storage]



Use bars or glass panes to prevent containers from falling in the event of an earthquake.



Prevent bottles from contacting each other in the event of an earthquake.

Take inventory of chemicals registered in YAKUMO regularly. YAKUMO's inventory function enables users to check chemicals registered in YAKUMO by scanning barcodes (storage numbers). Inventory taking helps check the usage or disposal registration in YAKUMO or clarify problems, such as differences between the storage areas registered in YAKUMO and actual storage areas. (For details, refer to the inventory taking manual.)

2. Storage of poisonous and deleterious substances

Poisonous and deleterious substances are specified in the Poisonous and Deleterious Substances Control Act, and their handling is regulated by the act. Poisonous and deleterious substances are specified based on their lethal doses and social impacts resulting from scandals, etc. Management of poisonous and deleterious substances is strictly regulated. It is necessary to prevent theft and loss.

Check the labels of chemical substances stored to determine whether they fall under the category of poisonous or deleterious substances. Labels of relevant chemical substances indicate "poisonous substance: not for medical use" ("Poisonous" in white letters on a red label) or "deleterious substance: not for medical use" ("Deleterious" in red letters on a white label).

The University Guidelines stipulate the storage of poisonous and deleterious substances as follows.

Article 6 of the Guidelines (Storage of Poisonous and Deleterious Substances)

1. The Chemical Substance Managers shall ensure that the Poisonous and Deleterious Substances are stored in a securely lockable storage location (which shall be metallic and difficult to carry around; hereinafter the same applies in this article) with clear distinction from other items and ensure that the storage location is locked at all times.
2. The Chemical Substance Managers shall, on their own responsibility, manage and hold the key(s) for the storage location(s) in their possession and keep a management book for such key(s).
3. The Chemical Substance Managers shall appoint an agent for storage of Poisonous and Deleterious Substances. If a Chemical Substance Manager is absent, the agent shall lock the storage location and manage the key.
4. The Chemical Substance Managers shall indicate their names on the storage location(s) containing Poisonous and Deleterious Substances as well as ensuring that:
 - Each of the Poisonous Substances is marked "Poison" in white letters on a red label, together with the indication "Not for Medical Use," and
 - Each of the Deleterious Substances is marked "Deleterious" in red letters on a white label, together with the indication "Not for Medical Use."
5. Whenever any of the Poisonous and Deleterious Substances is used, the Chemical Substance Manager responsible for such use shall record the consumption in weight or volume and keep the record on file for five years from the date of the end of use.