

## 4. How to register chemical substances in YAKUMO

At Kumamoto University, acquired chemical substances must be registered in YAKUMO.

Article 9 of the Rules (Registration of Chemical Substances in the Chemical Substance Management Support System)

The Chemical Substance Managers shall register Chemical Substances possessed by their respective Chemical Substance Handling Groups into the Kumamoto University Chemical Substance Management Support System (hereinafter referred to as “YAKUMO”).

The Rules also provide for chemical substances exempted from the requirement for registration in YAKUMO due to lack of necessity for management in YAKUMO or difficulty of management in YAKUMO, etc.

Article 10 of the Rules (Chemical Substances Exempted from the Requirement for Registration in YAKUMO)

Notwithstanding the provisions set out in the preceding Article, certain types of Chemical Substances may be exempt from the requirement for registration in YAKUMO.

- (1) Chemical Substances (e.g., liquid mixture, liquid waste) generated by the Chemical Substance Handling Groups
- (2) Chemical Substances included in test kits and experiment kits and other types of kits on the market
- (3) Items that are controlled and managed through the distribution system operated by University Hospital
- (4) Gaseous Chemical Substances contained in high pressure gases and other types of gases
- (5) Items specified in Article 2 of the Explosives Control Act (Act No. 149 of 1950)
- (6) Items specified in Article 2 of the Stimulants Control Act (Act No. 252 of 1951)
- (7) Items specified in Article 1-2 of the Agricultural Chemicals Regulation Act (Act No. 82 of 1948)
- (8) Items listed in Appended Table 1 of the Narcotics and Psychotropics Control Act (Act No. 14 of 1953)
- (9) Items designated by the Environmental Safety Center in addition to what are specified in the preceding items

YAKUMO is available for anyone through a PC connected to the on-campus LAN. (Only Handlers registered by the Manager in YAKUMO can log in.) The address of YAKUMO is indicated below. YAKUMO can also be accessed from the website of the Environmental Safety Center. For details on usage, refer to “Manuals/Materials” of YAKUMO.

URL of YAKUMO

<https://newyakumo.jimu.kumamoto-u.ac.jp/>

Website of the Environmental Safety Center (<http://www.esc.kumamoto-u.ac.jp/en/>)

Enter  in the search box

Refer to “Chemical substances” → “Activities.”

### (1) Overview of YAKUMO

YAKUMO was introduced at Kumamoto University in FY2006. At first, a commercially available system was used. However, management of chemical substances at the University is complicated. For example, many types of chemical substances are used, and such chemical substances are used by students who are still learning how to handle them. Against this backdrop, Kumamoto University developed a new proprietary system in 2015 and started its management.

YAKUMO was developed to serve as a partner for “education and research.” YAKUMO visualizes the management status of chemical substances of each Group. This supports the management of chemical substances and improves the educational effectiveness regarding management of chemical substances.

Barcode labels indicate the regulatory information so that hazards and toxicity of chemical substances to be handled are readily understandable. To facilitate management of chemical substances, the names of chemical substances possessed, quantity stored, used, and disposed of by Chemical Substance Handling Groups can be checked.

The locations and quantities of chemical substances with different hazards and toxicity can be checked. The university uses the information as a hazard map to ensure safety.



Fig. 3-5 Role of YAKUMO

### (2) Login to YAKUMO

Note: There are two types of login IDs: a personal login ID and a login ID for management (a five-digit numeral) assigned to respective Chemical Substance Handling Groups. Handle these login IDs carefully.

First, a YAKUMO user sets a login ID and password for the user based on guidance by the Manager. The user then logs in using the set login ID and password. Basically, a YAKUMO login ID should be a faculty number (an eight-digit numeral) for faculty and staff members and a student number (e.g., 〇〇〇t△△△△) for students. A password is set by respective users.



Fig. 3-6 YAKUMO start screen

(3) Registration of chemical substances in YAKUMO (storage registration in YAKUMO)  
 Registration of chemical substances in YAKUMO is referred to as “storage registration.”

☆ Flow of storage registration

The flow of storage registration of chemical substances in YAKUMO is as follows.

1. Receive a chemical substance, barcode label, Safety Data Sheet (simplified version) from a wholesaler (only for deleterious substances, organic solvents, specified chemical substances, and explosives’ raw materials).

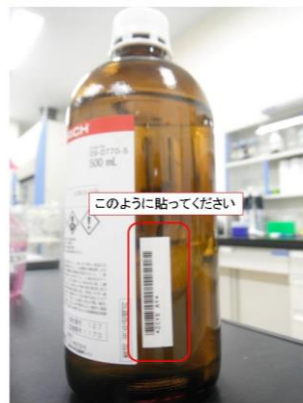
2. Log in to YAKUMO. Note that YAKUMO’s dashboard icon (storage registration) is red.



3. Click “Storage registration” → “Chemical substances” or the red icon. Click “(Temporary) storage registration quantity.” This transitions to the screen for storage registration of chemical substances.

4. Select a storage area and click “Register.” If there is a skull and crossbones mark (☠), select a storage location for deleterious substances.

5. The color of the dashboard icon (storage registration) changes to blue.



6. Paste a barcode label to the container of the chemical substance. If it is difficult to attach a barcode label because the bottle in which the chemical substance is contained is small, it is acceptable to attach a tag and paste the label on it or paste the label on a separate sheet of paper or a notebook for management. It is also acceptable to paste the label on a Safety Data Sheet (simplified version).

At Kumamoto University, storage registration of chemical substances in YAKUMO is performed at the counter with cooperation from wholesalers. At the counter, each chemical substance to be registered is subject to temporary registration to issue a storage number, barcode label, and Safety Data Sheet (simplified version) (only for deleterious substances, organic solvents, specified chemical substance, and explosives’ raw materials).

When a wholesaler delivers a chemical substance to a Chemical Substance Handling Group, a barcode label is also delivered. A user must paste a barcode label to the container of the chemical substance and select a storage area in YAKUMO for actual registration. This completes the storage registration.

The storage number is linked to the “chemical name,” “capacity,” “capacity unit,” “manufacturer’s name,” “CAS No.,” “storage area,” “date of storage,” and “regulatory information” in YAKUMO.

#### (4) Storage registration of chemical substances that are not delivered through the counter in YAKUMO

Temporary registration in YAKUMO through the counter is achieved with cooperation from wholesalers. Thus, wholesalers judge whether chemical substances are subject to registration in YAKUMO. The scope of registration in YAKUMO is determined by wholesalers and the Environmental Safety Center. It should be noted that some chemical substances are not temporarily registered in YAKUMO. Temporary registration is required for chemical substances not acquired from wholesalers or chemical substances that have existed in a Group without registration.

For chemical substances that require storage registration, fill out a “storage registration request sheet” and request the Environmental Safety Center for temporary registration. After storage registration is completed, a barcode label and a Safety Data Sheet (simplified version) are sent from the Environmental Safety Center by campus mail depending on the chemical substance. Register the chemical substance in accordance with the previous section (3).



Fig. 3-7 Request for storage registration

#### (5) Registration of storage locations of chemical substances in YAKUMO

It is necessary to register the storage locations in YAKUMO. First, register the storage location in accordance with the YAKUMO operation manual. For poisonous and deleterious substances, it is necessary to register storage locations for these substances separately. Subsequently, determine the storage location for an acquired chemical substance and go through the storage registration process. Store the chemical substance in a designated area.