waste liquid tank.

- [5] Clean an apparatus in a sink using detergent, etc., rinse the apparatus using ion exchanged water for finish, and dry the apparatus. (It is not necessary to put the wastewater in the waste liquid tank.)
- [6] If an organic solvent is used for rinsing for finish, put the solution in a waste liquid tank.
- [7] Dispose of gauze and other materials which are used to collect removed solids as experimentrelated waste.

Note that chemical substances adhere to the brush and sponge used in this process. Do not use such brush and sponge for cleaning in a sink.

Fouling can be removed by using a small quantity of rinsing liquid repeatedly. Regarding fouling caused by a chemical substance that cannot be dissolved, if it can be dispersed in a solvent, the fouling can be removed by repeating the process of dispersing the chemical substance and putting the solvent into a waste liquid tank to which gauze, etc. is set. Clean the apparatus if necessary.

## 3. Classification of experiment waste liquids

Experiment waste liquids are liquid waste that contains toxic chemical substances. Experiment waste liquids may flow into wastewater, onto the floor, or into soil. Prevent leakage, exudation, effluence, etc.

When storing experiment waste liquids, do not leave a funnel, etc. attached. Close the lid after use. Vapors of chemical substances are generated from the opening of a tank. The concentration of toxic substances in the surrounding environment may increase.

Experiment waste liquids are transported by a specialized contractor on public roads. Heavy metals, etc. are concentrated by reduction, neutralization, and coagulation sedimentation. Liquids are incinerated, and solid ingredients are subject to concrete solidification before landfill disposal. Experiment waste liquids are incinerated eventually.

Experiment waste liquids must be <u>separated based on the storage scheme in Reference Material</u> <u>6 at the end of this document</u>. They must be separately stored in special polyethylene containers. Note that the capacity of polyethylene containers may be 10 L or 20 L depending on the storage classification. When collecting experiment waste liquids in polyethylene containers, fill the containers up to about 80% of their capacity to prevent leakage. Set an inner cap or packing and close the cap securely.

Indicate "experiment waste liquids" on containers so that they can be distinguished from other containers.

[Examples of accidents]

- The cap opened during collection. A worker was exposed to the waste liquid.
- The waste liquid in an analyzer was mistaken for water and discharged into an effluent outlet.

## 4. Collection of experiment waste liquids

Experiment waste liquids are collected regularly (twice or three times a month). Regarding the collection schedule, refer to the "Chemical Substance Management and Waste Calendar" on the website of the Environmental Safety Center. Before discharging experiment waste liquids, apply for discharge from YAKUMO by the application deadline. Print a storage record book sheet, and paste the sheet on a pertinent waste liquid container to be discharged. For details of the operation method, refer to the YAKUMO operation manual.

<sup>非出暖号:</sup> y47001-難燃性廃液-44		申請日:2016-03-31
焼却処理:難燃性廃液		
(GHS)	pH :	排出日:
	≣t : 10 L	非出場所 : 環境安全センター 事務担当 :施設管理U-安衛T (化学物質管理)
水	7.61L (76.11 v/v%)	(排出者情報) 部 局: esc: 環境安全センター
ポリピニルピロリドン	200 g (20000 ppm)	グループ
くえん酸	2000 g (200000 ppm)	
クマシーブリリアントブルーR-250 [電気泳動用]	5 g (500 ppm)	化学物質管理責任者: 山口 佳宏
トリス(ヒドロキシメチル) アミノメタン	30 g (3000 ppm)	連絡先(内線番号): 3238 化学物質管理推進者: 連絡先(内線番号):
グリシン	144 g (14400 ppm)	〈 特記事項 〉
ドデシル硫酸ナトリウム	10 g (1000 ppm)	
		国立大学法人 熊本大学環境安全センター
		〒860-8555 熊本市中央区黒髪2丁目39番1号 環境安全センター担当事務 連絡先:096-342-3234
		容器表面を清潔して、本紙を貼り付けてくださ Please clean the front of the container and affiv this ch

## 5. Unnecessary chemicals

Unnecessary chemicals refer to chemical substances that are no longer used by a Group. Groups often continue to store unnecessary chemicals because such chemicals may be used in the future or it is wasteful to dispose of such chemicals. However, such practice often leads to problems, such as loss of chemicals, shortage of storage area for chemicals, deterioration of chemicals, and failure of identification due to fading and damage to labels. This makes it difficult to take action in the event of an emergency. During many years of possession, it may become illegal to possess certain chemicals due to changes in laws and regulations. Thus, it is recommended to promptly dispose of chemicals when they are no longer needed.

The Environmental Safety Center makes arrangements for discharge of unnecessary chemicals twice a year (in around July and December). Unnecessary chemicals are disposed of by a contractor. Unnecessary chemicals must be separated based on the classification shown in Table 6-1. Separate unnecessary chemicals to be discharged, and apply via YAKUMO. (For details, refer to "Unnecessary chemicals application manual" on YAKUMO.)

Regarding chemicals that are not registered in YAKUMO, prepare a list using Excel and send the list to the Environmental Safety Center through the administrative personnel of respective Sections, etc. The Environmental Safety Center also checks for unnecessary chemicals that cannot be disposed of. The following items are outside the scope of disposal by the Environmental Safety Center.

## [Items outside the scope of disposal]

Internationally controlled materials, stimulants/stimulants' raw materials, narcotics, explosives, radioactive substances, medical waste/infectious waste, asbestos-containing substances, PCB-containing substances, dioxins, experiment waste liquids (discharged during waste liquid collection on campus)

After the Environmental Safety Center checks the unnecessary chemicals, paste a YAKUMO barcode or an unnecessary chemicals discharge form (school/faculty/division, etc., Chemical Substance Manager, contact information, list No.) on each container. Put the containers in a box, etc. for discharge. The Environmental Safety Center collects the containers and checks the list submitted by a laboratory with unnecessary chemicals discharged. Each container that is checked is packaged in a polyethylene bag.

Workers may be injured, and fire or explosion and environmental pollution may occur. Take the