2026 edition

Retention Scheme for Experimental Liquid Waste

Experimental Liquid Waste [Liquid waste produced by education and research activities]

Items such as laboratory liquid waste resulting from educational, research, etc., activities containing chemical substances and liquid used to rinse containers containing laboratory liquid waste are to be treated as experimental liquid waste.

Un-diluted | Rinsing

<Points to be aware of regarding washing containers>
Rinse containers containing hazardous solvent with methanol or acetone.For details, refer to Cleaning Manual.

* Hazardous solvents: Any experimental liquid waste containing trichlorethylene, tetrachlorethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,3-dichloropropene, benzene, 1,4-dioxane

* If mixed with solid waste, filter out first. * When discharging liquid waste, be sure to measure the pH. * Store experimental liquid waste in a white two-way polyethylene container with the capacity of 10L or 20L designated according to categories of liquid waste.

The following chemical substances cannot be collected.

Contact the Environmental Safety Center.

Experimental liquid waste containing gunpowder, narcotics, radioactive substances, and with a risk of infection.

Does it contain hazardous substances?

Hazardous substances are defined as those:

- Not allowed to be discharged into sewers by "Precautions in disposal" in SDS
- Subject to laws and regulations on chemical substances (refer to the designated laws and regulations concerning chemical substances management).
- Cannot be determined their harm or danger
- With pH ≦5, or ≧9

*SDS stands for "Safety Data Sheet"

Containing hazardous substances

Not containing hazardous substances → To Sewer

Can be detoxified? • Neutralization

YES → Perform detoxification processes. → After detoxified, disposed to Sewer

NO

Is it classified as special waste liquid?

YES → **Special Waste Liquid** 10 L
Heavy metal liquid waste mixed with organic compound; liquid waste containing osmium, thallium, beryllium, organic phosphorus compound, organic mercury compound, PCB, dioxin, fluorine compound; concentrated acid (e.g. hydrochloric acid with a density greater than 6mol/L); concentrated alkali (e.g. sodium hydroxide with a density greater than 6mol/L) Should be individually stored

NO

Does it contain cyanogen?

YES → **Cyan Liquid Waste** 10 L
Cyanide or cyanogen compound including heavy metal cyan complex salt should be alkalized (pH ≧ 10.5) and stored.

NO

Does it contain inorganic mercury?

YES → **Mercury Compound Liquid Waste** 10 L
Mercury compound other than that containing cyanogen compound. (Mercury compound liquid waste containing cyanogen compound should be treated as cyan liquid waste.)

Special Treatment

NO

Does it contain heavy metal other than mercury? With pH ≦ 5, or ≧ 9?

YES

Does it contain toxic heavy metal?

YES → **Toxic Heavy Metal Liquid Waste** 20 L
Experimental liquid waste containing any of the following substances: chromium, arsenicum, selenium, cadmium, or lead

NO

Does it contain heavy metal?

YES → **Heavy Metal Liquid Waste** 20 L
Experimental liquid waste containing heavy metal (other than those are classified as toxic heavy metal liquid waste, mercury liquid waste, or special liquid waste)

NO

Is it used as photographic developer?

YES → **Photographic Developer** 20 L
Experimental liquid waste used as photographic developer

NO

Is it used as photographic fixer?

YES → **Photographic Fixer** 20 L
Experimental liquid waste used as photographic fixer

NO

With the pH ≧ 9?

YES → **Alkaline Liquid Waste** 20 L
Alkaline experimental liquid waste with the pH ≧ 9

NO

With the pH ≦ 5?

YES → **Acid Liquid Waste** 20 L
Acid experimental liquid waste with the pH ≦ 5

[Reduction, Neutralization, Coagulating Sedimentation] → Incineration Treatment

NO

Does it contain toxic solvent?

YES → **Toxic Solvent Liquid Waste** 10 L
Experimental liquid waste containing any of the following substances: trichloroethylene, tetrachloroethylene, dichloromethane, carbon tetrachloride, 1,2-dichloroethane, 1,1-dichloroethylene, cis-1,2-dichloroethylene, 1,1,1-trichloroethane, 1,1,2- trichloroethane, 1,3-dichloropropene, benzene

NO

Is it categorized as special inflammable material?

YES → **Special Inflammable Material** 10 L
Experimental waste containing liquid whose ignition point is 100 degrees or lower at one atmospheric pressure, or, whose flash point is minus 20 degrees or lower and boiling point is 40 degrees or lower at one atmospheric pressure (They are restricted by Fire Service Act to be stored up to 10L per laboratory. e.g. diethyl ether, carbon disulfide, acetaldehyde, propylene oxide)

NO

Is it categorized as waste oil, or is it viscous?

YES → **Waste Oil** 10 L
Experimental waste with viscosity including heavy oil, machine oil, oil extracted from animals and plants. (light oil and kerosene should be treated as flammable liquid waste.)

NO

Does it contain flammable substances, and is the content 40% or more?

YES → **Flammable Liquid Waste** 10 L
Experimental waste containing flammable or inflammable liquid (excluding toxic solvent liquid waste, special inflammable materials, and waste oil) and the content is 40% or more.

NO → **Non-Flammable Liquid Waste** 10 L
Experimental waste containing flammable or inflammable liquid (excluding toxic solvent liquid waste, special inflammable materials, and waste oil) and the content is less than 40%.

[Incineration Treatment]

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