


Collection and classification of **INORGANIC** liquid waste from experimental facilities

| Class | Group/Contents | Container | Remarks |
|---|--|---------------------------|---|
| 1 | MERCURY and MERCURY COMPOUNDS Inorganic mercury compounds Organic mercury compounds (Acidification) | Gray 20L | Wash the emptied vessel which contained the liquid wastes at least thrice, store the washing with the wastes at pH< 2. Filter off any precipitate →Store the precipitate as “mercury sludge” in other sealed vessel. <ul style="list-style-type: none"> • Organic mercury compounds ; Decompose organic compounds (see note 1). (>3% organic compounds) • Mercury metals and mercury amalgam ; Add water and store in other sealed vessel. |
| 2 | ACID, CHROMIUM and HEAVY METALS Bismuth, copper, cobalt, chromium, cadmium, iron, lead, manganese, nickel, silver, tin, zinc, etc. and their salts Mineral acid waste solutions, such as hydrochloric acid, sulfuric acid, nitric acid, etc. (Acidification) | Red 20L | Wash the emptied vessel which contained the liquid wastes at least thrice, store the washing with the wastes at pH< 4. Filter off any precipitate →Store the precipitate as “non-mercury sludge” in other sealed vessel. <ul style="list-style-type: none"> • Liquid wastes of less than 5% sulphuric acid or hydrochloric acid without harmful compounds could be carefully disposed off after neutralization (pH 5-9). • Inorganic fluoride ; Do not store in container. • Mercury compounds ; Store the liquid wastes after ensuring the concentration below 10ppb of mercury. • Cyanide and their compounds ; Store the liquid wastes after ensuring the concentration below 1 ppm of cyanide. |
| 3 | CYANIDE and ARSENIC COMPOUNDS Cyanide compounds, cyanide complex compounds, arsenic, selenium compounds (Alkaline condition) | Orange 20L | Wash the emptied vessel which contained the liquid wastes at least thrice, store the washing with the wastes at pH>9. Filter off any precipitate →Store the precipitate as “non-mercury sludge” in other sealed vessel. <ul style="list-style-type: none"> • Cyanide and their compounds ; Store the liquid wastes after ensuring the concentration below 80 ppm of cyanide. (see note 2) |
| 4 | ALKALINE SOLUTIONS Potassium hydroxide, sodium hydroxide, sodium carbonate, potassium carbonate, ammonium compound, alkaline solutions containing heavy metals, etc. | Blue 20L | Wash the emptied vessel which contained the liquid wastes at least thrice, store the washing with the wastes. Filter off any precipitate →Store the precipitate as “non-mercury sludge” in other sealed vessel. <ul style="list-style-type: none"> • Liquid wastes of less than 5 % sodium hydroxide, potassium hydroxide or their salts without harmful compounds could be carefully disposed off, after neutralization (pH 5-9). • Mercury compounds ; Store the liquid wastes after ensuring the concentration below 10 ppb of mercury. • Cyanide and their compounds ; Store the liquid wastes after ensuring the concentration below 1 ppm of cyanide. |
| 5 | HYDROGEN FLUORIDE and INORGANIC FLUORIDE Hydrogen fluoride, etc | White 20L with black line | Wash the emptied vessel which contained the liquid wastes at least thrice, store the washing with the wastes. |
| Do not store in container  | | | Over 3 % organic compounds (contained cheating reagent); Decompose organic compounds. (see note 3) Waterless compounds (alkali metals, carbide, etc.) and ignitable compounds (organic lithium, organic aluminum, etc.) Over 200 ppm of Boron Osmium, thallium and beryllium and their compounds ; they should be carefully stored at the user's laboratory. Radioactive wastes |