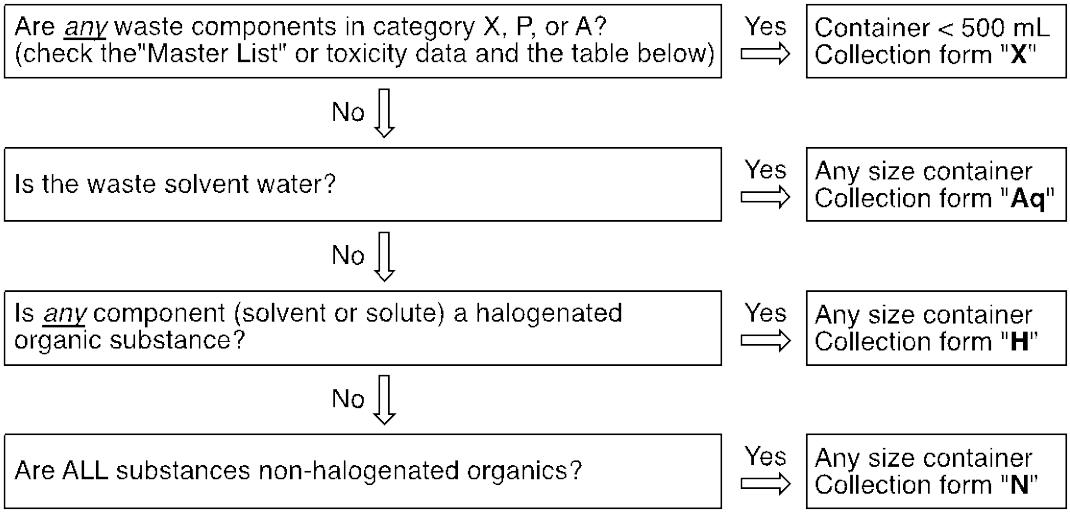
# Waste Collection Instructions

Laboratory waste management depends on proper collection and labeling. First you must identify each chemical's "Toxicity Category" (X, A, B, C, or D) because this determines how the waste will be collected. Second you must consider the solvent (water, halogenated, or non-halogenated). Third, the correct collection form should be chosen and filled out accurately. Use the flow chart below to determine the waste collection container size and appropriate collection form.




**Determining a chemical's Toxicity Category:**
Use Table 1 (below) to determine the toxicity category of any waste. $LD_{50}$ and $LC_{50}$ data can be found on SDS forms in Sections 11 and 12.

**Table 1.** Determining the Toxicity Category of a Substance.[a]

| Toxicity Category | Fish $LC_{50}$ (mg/L) | Oral (rat) $LD_{50}$ (mg/kg) | Inhalation (rat) $LC_{50}$ (mg/L) | Dermal (rabbit) $LD_{50}$ (mg/kg) | Example compounds |
|---|---|---|---|---|---|
| **X** | < 0.01 | < 0.5 | < 0.02 | < 2 | organophosphates, pesticides |
| **A** | 0.01 – 0.1 | 0.5 – 5 | 0.02 – 0.2 | 2 – 20 | fuming nitric acid, aflatoxin |
| **B** | 0.1 – 1 | 5 – 50 | 0.2 – 2 | 20 – 200 | phenol, sodium azide, sodium cyanide |
| **C** | 1 – 10 | 50 – 500 | 2 – 20 | 200 – 2000 | stannic chloride, sodium fluoride |
| **D** | 10 – 100 | 500 - 5000 | 20 - 200 | 2000 – 20,000 | methanol, stannous chloride |

[a] In cases where several $LC_{50}$ or $LD_{50}$ values are available, select the Toxicity Category that gives the highest toxicity category (X > A > B > C > D). For example, imagine that a chemical that has an $LC_{50}$ value in fish of 0.62 mg/mL (Toxicity Category A), and an oral (rat) $LD_{50}$ value of 11.3 (Toxicity Category B); that chemical must be classified as Toxicity Category A (the higher of the two Toxicity Categories).