

Managing Empty Chemical Containers for Disposal

In order to satisfy RCRA regulatory requirements for empty container disposal (40 CFR Part 261.7), several requirements must first be met. Determining whether the container contained a Hazardous or Acutely Hazardous waste is the first part of this process. Hazardous and Acutely Hazardous material containers require different steps be taken in order to be considered RCRA Empty.

Hazardous Materials Containers:

A container which was used to hold a Hazardous Material is considered to be RCRA Empty when the following conditions have been met:

- 1. All unused chemical that can physically be removed has been removed though means commonly utilized when removing chemical from that type of container (pouring, pumping, aspirating, etc.).
- 2. The container cannot have more than 2.5 centimeters (one inch) of residue, or not more than 3 percent by weight in residue of the total capacity of the container if the container is less than or equal to 119 gallons in size. If the container is greater than 119 gallons in size, the amount of residue permitted is reduced to 0.3 percent of total capacity.

When both of these conditions have been met, the container is considered to be RCRA Empty. The container itself no longer meets the regulatory requirements to be a hazardous waste under RCRA. It is not necessary to rinse empty containers of Hazardous Materials provided that they meet the definition of RCRA Empty as outlined above.

Acutely Hazardous Materials Containers:

A container which was used to hold an Acutely Hazardous Material is considered to be empty when any one of the following conditions have been met:

- 1. The container has been triple rinsed using a suitable solvent capable of removing the residual chemical from the container.
- 2. The container has been cleaned using a method demonstrated in the scientific literature or by testing performed by the generator to be equally effective at removing chemical residue from the container.
- 3. If the container had an inner liner that physically prevented chemical contact, that liner may be removed from the container. The inner liner would be disposed of as an acutely hazardous waste, leaving the container RCRA Empty.

When any one of these conditions are met, the container is considered to be RCRA Empty. It is important to note that any rinsate generated must be collected and disposed of as an acutely hazardous waste. The solvent utilized will contain quantities of Acutely Hazardous Material, and the solvent itself may be considered to be a Hazardous Material.

Triple Rinsing Containers:

When a container must be rinsed prior to disposal as is the case for Acutely Hazardous waste containers, the following steps are to be taken:

- 1. Ensure that all useable contents of the container have been spent, and that only a residual quantity of chemical remains in the container.
 - a. If more than a residual quantity of chemical is present or there is visible sludge or solids, do not attempt to rinse the container. The container should instead be labeled and provided to EHS for disposal as a hazardous waste.
- 2. Using water or another suitable solvent, fill the container to approximately 10% full. Replace the lid, then vigorously shake and swirl the container so that all parts of the inside of the container are thoroughly rinsed.
- 3. Pour out the rinsate from the container into a properly labeled hazardous waste container for disposal.
- 4. Repeat steps 2 and 3 an additional 2 times.
- 5. Once the container has been rinsed a total of 3 times, remove or deface the label, and write the word "EMPTY" on the container. The container is now ready to be disposed of.

Empty Container Disposal:

When possible, it is best if empty chemical containers can be reused for the collection of the same waste chemical or compatible waste chemicals. If you are reusing a container, be sure to remove, deface, or cover the original label with a Rowan University Hazardous Waste Label.

If disposal is required, ensure that the container meets the requirements to be considered RCRA Empty. Containers must be dry, the original label must be defaced, and the word "EMPTY" must be written on the container. Dispose of glass containers in a glassware disposal container. Plastic or metal containers should be disposed of in the regular trash.