



Vaping Waste Disposal for Schools

Vaping devices (E-cigarettes) consist of cartridges with liquid nicotine mixtures and lithium ion batteries. These devices can pose a threat to human health and the environment if they are not handled and disposed of properly. Nicotine cartridges and lithium ion batteries fall under federal disposal requirements for hazardous and universal wastes respectively. These devices, and their components, should not be thrown in the regular trash or flushed down a sink. Instead, these items should be taken safely to a hazardous waste facility for proper disposal.

Best Practices for Handling and Disposal of Vaping Wastes (*applies to both cartridges and batteries*)

Vaping devices and their components are subject to Resource Conservation Recovery Act (RCRA) hazardous waste laws for handling and disposal when they are confiscated and collected in a school setting. The following are best practices for handling the devices and their wastes:

- Identify a hazardous waste transportation or disposal facility that can accept the vaping wastes and help your school determine proper management and storage of the wastes.
- Never throw vaping devices or their batteries in the trash or store them in desk drawers, office cabinet, or similar receptacle.
- Turn off the device and remove the rechargeable battery if possible. If the device is not yours have the user do it.
- Place the separated nicotine cartridges and lithium ion batteries in separate leak-proof containers that can be sealed when not disposing of wastes (*see additional requirements below*).
- Store all items in a cool temperature environment.
- Train employees on proper management, disposal and emergency response procedures for hazardous and universal wastes.
- The two waste streams (cartridges and batteries) have specific handling requirements described below.
- Other options for disposal exist for facilities that become a household hazardous waste collectors for those who occupy school grounds (students, teachers, etc.). Contact your local solid waste coordinator for details.

Nicotine Liquid and Cartridges– A Hazardous Waste

- ***DO NOT*** accumulate more than 2.2 pounds of nicotine containing cartridges. Accumulating 2.2 pounds of waste will trigger additional RCRA requirements.
- Properly label the storage container as “Hazardous Waste.”
- The total weight includes the entire cartridge, not just the liquid contents. It also includes the battery if they can’t be separated from the cartridge.
- Deliver the container of nicotine containing waste to a local hazardous waste facility at *least every ninety (90) days*.
- Do not rinse the vaping devices containers to remove the nicotine containing liquid/residue. That water would become hazardous waste and then need to be stored and disposed of properly as hazardous waste.
- Handle unused and discarded vaping devices carefully to avoid exposure to unused nicotine. Liquid nicotine can be absorbed through the skin and can cause accidental poisoning.

Lithium Ion Batteries- A Universal Waste

- Label the storage container as “Universal Waste.”
- Can accumulate waste on-site for up to one year, up to 11,000 lbs.
- Do not dilute or treat the waste and take steps to prevent any release to the environment.

This publication is for informational purposes only and is not a substitute for reading and understanding federal and state regulations for handling hazardous wastes governed under RCRA. Additional information on RCRA and hazardous wastes can be found below.

What is a Hazardous Waste?

<https://www.epa.gov/hw/learn-basics-hazardous-waste>

Resource Conservation and Recovery Act Overview:

<https://www.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-overview>

RCRA Listed Wastes:

<https://www.epa.gov/hw/defining-hazardous-waste-listed-characteristic-and-mixed-radiological-wastes#listed>

Categories of Hazardous Waste Generators

<https://www.epa.gov/hwgenerators/categories-hazardous-waste-generators#large>

EPA Opinion Letter on e-liquid as a hazardous waste:

<https://rcrapublic.epa.gov/files/14850.pdf>

Have additional questions?

Kentucky Division of Waste Management Hazardous Waste Branch

<https://eec.ky.gov/Environmental-Protection/Waste/hazardous-waste/Pages/default.aspx>

Environmental Compliance Assistance Program, Kentucky Division of Compliance Assistance:

<https://eec.ky.gov/Environmental-Protection/Compliance-Assistance/Pages/Environmental-Compliance-Assistance-Program.aspx>



Kentucky Division of Compliance Assistance

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