



Universal Waste Aerosol Cans.

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Regulatory history.

Federal Register Vol. 84 No. 236.

- Federal adoption February 7, 2020.
- Florida adoption October 30, 2020.



Purpose.

- Ease regulatory burden on retail stores.
- Promote collection and recycling of cans.
- Encourage the development of municipal and commercial programs to reduce the quantity of these wastes going to municipal solid waste landfills and combustors.



Who is affected?

This final rule affects persons who generate, transport, treat, recycle, or dispose of hazardous waste aerosol cans, herein referred to as aerosol cans, unless those persons are households or very small quantity generators (VSQGs).



Definitions.

- Aerosol can means a non-refillable receptacle containing a gas compressed, liquefied or dissolved under pressure, the sole purpose of which is to expel a liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas.

[40 CFR 273.9]



Components of an aerosol can.

- The can or container storing both propellant and the product.
- An actuator or button at the top of the can that is pressed to deliver the product.
- A valve, which controls delivery or flow of the product.
- The propellant (a compressed gas or liquefied gas), which provides the pressure in the container to expel or release the product when the actuator is pressed to open the valve.
- The product itself.
- A dip tube, which is connected to the valve to bring the product up through the can to be released when the actuator is pressed.



Generator requirements.

- Small quantity handlers.
- Large quantity handlers.



Small quantity handler.

Small Quantity Handler of Universal Waste means a universal waste handler who does not accumulate 5,000 kilograms or more of universal waste at any time.

[40 CFR 273.9]



Applicability.

The requirements of this part apply to persons managing aerosol cans, as described in § 273.9, except those listed in paragraph (b) of this section.

[40 CFR 273.6]



Applicability.

The requirements of this part do not apply to persons managing the following types of aerosol cans:

- Aerosol cans that are not yet waste under part 261 of this chapter.
- Aerosol cans that are not hazardous waste. An aerosol can is a hazardous waste if the aerosol can exhibits one or more characteristic or the aerosol can contains a listed substance.
- Aerosol cans that meet the standard for empty containers under § 261.7 of this chapter.

[40 CFR 273.6(b)]



Generation.

A used aerosol can becomes a waste on the date it is discarded.

Or.

An unused aerosol can becomes a waste on the date the handler decides to discard it.





Waste management.

A small quantity handler of universal waste must manage universal waste aerosol cans in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

- Universal waste aerosol cans must be accumulated in a container that is structurally sound, compatible with the contents of the aerosol cans, lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and is protected from sources of heat.

[40 CFR 273.13(e)]



Waste management.



This box is not structurally sound.



Waste management.

- Universal waste aerosol cans that show evidence of leakage must be packaged in a separate closed container or overpacked with absorbents, or immediately punctured and drained in accordance with the requirements of this paragraph.

[40 CFR 273.13(e)]



Waste management.

- A small quantity handler of universal waste may conduct the following activities as long as each individual aerosol can is not breached and remains intact:
 - Sorting aerosol cans by type.
 - Mixing intact cans in one container.
 - Removing actuators to reduce the risk of accidental release.





Puncturing.

Universal Waste Aerosol Cans.



Puncturing and draining aerosol cans.

Aerosol cans may still be managed as a universal waste prior to puncturing and draining provided specific conditions are met.





Waste management.

- A small quantity handler of universal waste who punctures and drains their aerosol cans must recycle the empty punctured aerosol cans and meet the following requirements while puncturing and draining universal waste aerosol cans:
 - Conduct puncturing and draining activities using a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof.
 - Establish and follow a written procedure detailing how to safely puncture and drain the universal waste aerosol can [...] maintain a copy of the manufacturer's specification and instruction on site; and ensure employees operating the device are trained in the proper procedures.

[40 CFR 273.13(e)]



Aerosol can puncturing device.





Waste management.

Good! Notice the sign, it states that if you don't know how to use this device to NOT use this device! There is also a hazardous waste label right on the drum, since the drum is the storage for the drippings.





Waste management.

- Ensure that puncturing of the can is done in a manner designed to prevent fires and to prevent the release of any component of universal waste to the environment. [...]
- Immediately transfer the contents from the waste aerosol can or puncturing device, if applicable, to a container or tank that meets the applicable requirements of § 262.14, 15, 16, or 17.
- Conduct a hazardous waste determination on the contents of the emptied aerosol can per 40 CFR 262.11. The handler is considered the generator of the hazardous waste and is subject to 40 CFR part 262.





Examples of puncturing devices.





Waste management.



Bad! Notice the drips and spray... something is not going right here. They might be improperly trained or have malfunctioning equipment.



Waste management.

- If the contents are determined to be nonhazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state, or local solid waste regulations.
- A written procedure must be in place in the event of a spill or leak and a spill clean-up kit must be provided. All spills or leaks of the contents of the aerosol cans must be cleaned up promptly.



[40 CFR 273.13(e)]



Labeling and marking.

Universal waste aerosol cans (i.e., each aerosol can), or a container in which the aerosol cans are contained, must be labeled or marked clearly with any of the following phrases: “Universal Waste—Aerosol Can(s),” “Waste Aerosol Can(s),” or “Used Aerosol Can(s)”.

[40 CFR 273.14(f)]



Accumulation time limits.

A small quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated or received from another handler. The small quantity handler of universal waste must be able to demonstrate the length of time universal waste has been accumulating.

- Mark the containers, or.
- Mark each individual item, or.
- Maintain an inventory system, etc.

[40 CFR 273.15]



Large quantity handler.

Large Quantity Handler of Universal Waste means a universal waste handler who accumulates 5,000 kilograms or more total of universal waste at any time.

[40 CFR 273.9]



Large quantity handler management.

The main differences, large quantity handlers of universal waste must notify using 8700-12FL Form and must track shipments of universal waste.

[40 CFR 273.32]

[40 CFR 273.39]



Bonus topics.

- RCRA empty.
- Scrap metal.
- Waste determination tips.
- Proposed PFAS as CERCLA hazardous substance.
- Hazardous waste pharmaceutical guidance.



40 CFR 261.7. “RCRA empty” definition.

A container that has held a hazardous waste that is compressed gas is empty when the pressure in the container approaches atmospheric.

[40 CFR 261.7(b)(2)]



40 CFR 261.7.

“RCRA empty” definition – acutely toxic hazardous waste.

A container or an inner liner removed from a container that has held an acute hazardous waste is empty if:

- The container or liner has been triple rinsed using a solvent capable of removing the product.

[40 CFR 261.7(b)(3)]



40 CFR 261.7.

“RCRA empty” definition – acutely toxic hazardous waste.

EPA also considers a container that has held an acute hazardous waste that is a compressed gas to meet the definition of empty when it approaches atmospheric pressure, as defined in 40 CFR 261.7(b)(2).

EPA is not aware of a chemical commonly found in aerosol cans that would be listed as an acute hazardous waste, but if such an aerosol can product does exist, it would have to meet the 40 CFR 261.7(b)(2) or (3) standard to be considered “empty” under the regulations.



Scrap metal recycling.

In the case of aerosol cans being recycled, rather than disposed of, aerosol cans that have been punctured and drained prior to recycling are considered exempt scrap metal under 40 CFR 261.6(a)(3)(ii), and therefore all such punctured cans would be exempt from hazardous waste requirements when recycled.

EPA agrees that, while aerosol cans do not need to be triple rinsed prior to being recycled as scrap metal, they do need to have their contents removed to be considered scrap metal.





Simplify waste determinations.

Since a generator must conduct a waste determination on the drained contents of the cans, these are a few additional steps to simplify this process:

- Sorting cans containing nonhazardous contents from those containing hazardous contents.
- Determining whether the contents would be acute hazardous waste.
- Determining whether the drained contents could affect your generator status.
 - If a facility is on the edge between VSQG and SQG or SQG and LQG this is important.



Hazardous waste aerosol cans.

If a facility chooses to manage their aerosols as hazardous waste they do not need to comply with the increased universal waste regulations – such as a written procedure, etc.

SQGs and LQGs still need to ensure they are preventing releases to the environment [40 CFR 262.16(b)(8)(i) or 40 CFR 262.251].

Inspection tips:

- Check for paint splatter or drips.
- Request the manual for the puncture unit and check how often the filter needs to be changed.
- Ensure employees operating the device are trained in proper procedures.



Waste aerosol cans.

- A facility can puncture and drain some universal waste aerosol cans and still manage others in a universal waste collection container. This is usually because the contents of some containers will clog or damage the puncturing device (e.g., adhesives, expandable foam).
- As part of the written SOP and training plan for staff the facility needs to clearly indicate which containers will be managed as intact universal waste and which will be punctured and drained.



Proposed PFAS as CERCLA hazardous substance.

- EPA is proposing to designate Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances.

[https://www.epa.gov/superfund/proposed-designation-perfluorooctanoic-acid-pfoa-and-perfluorooctanesulfonic-acid-pfos.](https://www.epa.gov/superfund/proposed-designation-perfluorooctanoic-acid-pfoa-and-perfluorooctanesulfonic-acid-pfos)



Hazardous waste pharmaceutical guidance.

- EPA updated the 10-step blueprint for managing pharmaceutical waste in U.S. healthcare facilities.

[https://www.epa.gov/hwgenerators/management-hazardous-waste-pharmaceuticals.](https://www.epa.gov/hwgenerators/management-hazardous-waste-pharmaceuticals)



THANK YOU

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