

#### DEPT. OF ENVIRONMENT AND ENERGY

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05-181

Revised May 2025

# Aerosol Can Waste

This guidance document has been produced by the Nebraska Department of Environment and Energy (NDEE) to provide waste management guidance for "empty" aerosol containers. The regulations applying to this topic can be found in Nebraska <u>Title 128 – Hazardous Waste Regulations</u>.

#### Who is affected?

Businesses, governments, schools, and organizations that generate aerosol can waste are subject to hazardous waste regulation. Aerosol can waste generated from households is exempt from regulation.

#### When is an aerosol can considered "empty"?

According to the Resource Conservation and Recovery Act (RCRA) and Title 128, Chapter 2, §015.03, an aerosol can is considered "RCRA empty" when it has no more than one inch of residue or no more than 3% by weight of the total capacity remaining. For example, a 16-ounce aerosol can cannot contain more than 0.48 ounces of residual hazardous waste to be "RCRA empty." An aerosol can is not considered to be "empty" if the contents have not been used up.

#### Is the "RCRA empty" aerosol can a hazardous waste?

All aerosol cans, including "RCRA empty" aerosol cans are considered hazardous waste because they exhibit the characteristic of reactivity (D003) regardless of their contents. This means that the can is capable of an explosive reaction or detonation if it is subjected to a strong initiating force or heated under confinement. The characteristic of reactivity can be removed if the aerosol can is safely depressurized or emptied by puncturing the can.

An aerosol container can also be a hazardous waste due to the contents of the can. Any hazardous residue remaining in the can meeting the definition of "RCRA empty" is exempt from regulation unless it is a P-listed acutely hazardous waste. If the residue is drained from the can, it will no longer be exempt from regulation and will require a waste determination as a newly generated waste.

## **Puncturing Aerosol Cans**

Aerosol can puncture devices in a closed container may be used to completely empty aerosol cans of their contents and make them non-reactive. The act of puncturing the aerosol cans meets the

requirements for deactivation of the reactivity (D003) characteristic. If the punctured cans did not contain a P-listed acute hazardous waste and are not being managed as scrap metal, they may be disposed of in the trash. If the aerosol can was not "RCRA empty" before puncturing, the puncturing and draining step creates a "RCRA empty" container. The weight of the empty aerosol cans generated will be included in the monthly total hazardous waste generation unless they are being managed as scrap metal. Any liquid waste that is drained from the container must have a waste determination performed. If the contents of the container are determined to be hazardous, then the amount drained will be counted towards the monthly generation of hazardous waste.

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requires that empty pesticide containers be disposed of according to label instructions. Do not puncture the can if the label states not to puncture. Generators of hazardous waste that manage pesticides are subject to the requirements of FIFRA which is regulated under the Nebraska Department of Agriculture.

A waste determination must be performed on the contents of the aerosol cans that are collected through puncturing. A facility should be able to state the correct waste codes and identify all underlying hazardous constituents (UHCs). A log of the chemicals placed in the collection drum can be used as documentation. If a log is not kept, or the contents of the drum is unknown, a waste determination using analytical testing may be needed. For more information on performing waste determinations, see the NDEE Guidance Document titled "Waste Determinations & Hazardous Waste Testing."

It is recommended that a volatile organic compound (VOC) filter be used on the collection drum and that it should be changed before it becomes ineffective. Spent VOC filters will require a waste determination before disposal because they may absorb chemicals from the contents of the drum.

The collection container must be closed unless waste is being added or removed. Puncturing drums are generally considered closed if the puncturing device lid is closed and secured by the setscrew and the VOC filter is in place. The collection drum may be managed as a satellite accumulation container per Title 128, Chapter 9, §007.04. Up to 55-gallons of the same waste is eligible to be counted as satellite accumulation. Once the 55-gallon limit has been reached, the generator has three days to move the container to a central accumulation area where proper label, dating, and storage requirements from Chapters 9 or 10 will apply.

## Can aerosol cans be put in the trash?

Punctured and drained aerosol cans may be disposed of in the trash unless they contained P-listed acute hazardous waste. If the empty can held P-listed hazardous waste, the can itself is a P-listed waste unless it is triple rinsed with a solvent that is capable of removing the P-listed chemical per Title 128, Chapter 2, §015.05, cleaned by another method proven to achieve equivalent removal, or has an inner liner removed, if present. Aerosol cans that contain pesticides may have different requirements through FIFRA but are required to be triple rinsed at minimum. Follow label instructions for disposal of pesticides.

Conditionally Exempt Small Quantity Generators (CESQGs) are allowed to send up to 19.5 kg (43 lbs.) of hazardous waste to a permitted municipal solid waste landfill per day which includes punctured and unpunctured aerosol cans. Landfills are allowed to place additional restrictions on the waste that they accept.

Small Quantity and Large Quantity Generators (SQGs and LQGs, respectively) are not allowed to place unpunctured "RCRA empty" and non-empty aerosol cans in the trash. At minimum, they must be managed as D003 reactive hazardous waste or scrap metal.

Puncturing aerosol cans that will not be recycled as scrap metal is considered treatment of hazardous waste for land disposal. SQGs and LQGs that puncture cans that are not managed as scrap metal must have a written Waste Analysis Plan (WAP) kept on-site. Requirements for the WAP can be found in Title 128, Chapter 20, §005.01E.

If punctured cans are being sent to a landfill, a one-time notification and certification must be sent to the NDEE Waste Compliance Section, and a copy must be kept in the generator's on-site files. See Title 128, Chapter 20, §006.04 for a full description of notification requirements. This requirement does not apply to generators managing the punctured cans as scrap metal.

## Managing Aerosol Cans as Scrap Metal

It is recommended that empty aerosol cans be recycled as scrap metal whenever possible. The puncturing of an aerosol can that is to be recycled is considered scrap metal processing and creates "excluded scrap metal" that is excluded from the definition of solid waste. This exclusion does not apply to aerosol cans that will be disposed of in a landfill.

Unpunctured aerosol cans may be managed as unprocessed scrap metal if they are "RCRA empty" and will be sent off-site for recycling as scrap metal. Scrap metal is exempt from hazardous waste regulation (Title 128, Chapter 7, <u>§002.03</u>) but is still subject to speculative accumulation. To be eligible for any scrap metal exemption, the aerosol can must be "RCRA empty."

## Material Removed from Aerosol Cans – Hazardous Waste Determination Considerations

If the material removed from the can exhibits a characteristic of hazardous waste (ignitable, reactive, corrosive, or toxic), it is considered a newly generated characteristic hazardous waste at the time that the can was punctured regardless of the contents containing a listed hazardous waste.

Residue from an aerosol can that was not "RCRA empty" that is a commercial chemical product is a U or P-listed hazardous waste because the solvent being removed is considered still usable and is therefore not a "spent" solvent.

## **RESOURCES:**

- NDEE Home Page <u>https://dee.nebraska.gov/</u>
- NDA Home Page <u>https://nda.nebraska.gov/</u>

## Contacts:

- NDEE Main Number
- NDEE Toll Free Number
- NDEE Hazardous Waste Compliance Assistant
- Email questions to: <u>NDEE.moreinfo@nebraska.gov</u>

(402) 471-2186

(877) 253-2603

(402) 471-8308

#### NDEE Publications:

- Environmental Guidance Document "Waste Determinations & Hazardous Waste Testing" Guidance documents are available on the NDEE Home Page under "Forms", "Publications, Grants & Forms".
- <u>Title 128 Nebraska Hazardous Waste Regulations</u> *Titles are available on the NDEE Home Page under "Resources and Services", "Laws & Regulations", "Rules & Regulations".*

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