

Hazardous Waste Management

Disposal of Aerosol Containers

Information presented in this fact sheet is intended to provide a general understanding of the regulatory requirements governing the management of disposable aerosol containers. This information is not intended to replace, limit, or expand upon the complete regulatory requirements found in Division 14 of the Alabama Department of Environmental Management Administrative Code.

WHAT IS AN AEROSOL CONTAINER?

An aerosol container is a dispenser that holds a substance under pressure and that can release the substance, usually by means of a propellant gas, in a number of forms such as wet sprays, fine sprays, powder sprays, foams, or pastes. Common liquefied propellants include propane, butane, and isobutane.

WHAT ARE THE SAFETY AND ENVIRONMENTAL CONCERNS FOR AEROSOL CONTAINERS?

Some aerosol products (e.g., paints, solvents, pesticides) are hazardous due to the presence of hazardous ingredients. Aerosol products should be used with adequate ventilation and/or personal protective equipment to prevent inhalation and exposure that may result in harmful health effects. Extreme temperatures may cause containers to rupture and moisture may cause them to rust, resulting in a release of the contents to the environment. Most aerosol containers pose a fire hazard because they contain highly flammable propellants such as propane and butane. Pressurized containers present additional concerns. If punctured, the contents may be released so forcefully that injuries can result. Also, pressurized containers delivered to a landfill present safety concerns during compacting.

WHICH AEROSOL CONTAINERS ARE REGULATED AS SOLID WASTE?

An aerosol container is regulated as solid waste (not hazardous waste) if it:

- 1) Did not contain a material that would be a listed hazardous waste or a characteristic hazardous waste; **OR**
- 2) Is empty, as defined by ADEM Admin. Code r. 335-14-2-.01(7); OR
- 3) Is recycled for scrap metal in accordance with ADEM Admin. Code r. 335-14-2-.01(6).

WHICH AEROSOL CONTAINERS ARE REGULATED AS HAZARDOUS WASTE?

An aerosol container is regulated as hazardous waste if it:

- 1) Contains a material that is a listed hazardous waste or a characteristic hazardous waste; AND
- 2) Is not empty, as defined by ADEM Admin. Code r. 335-14-2-.01(7); AND
- 3) Is not recycled for scrap metal in accordance with ADEM Admin. Code r. 335-14-2-.01(6).

MAY I USE A DEVICE TO PUNCTURE AEROSOL CONTAINERS?

Companies that regularly generate significant numbers of waste aerosol containers may be interested in using a device to puncture and drain the containers. Use of such a device does not require a waste-treatment permit at this time. If you choose to use one, consider the following precautions:

- → Follow the manufacturer's instructions for operating, cleaning, and maintaining the device.
- → Employees operating the device should be thoroughly trained and should wear appropriate personal protective equipment.
- → Do not puncture containers with any of these ingredients: ethyl ether (often in starting fluids), chlorinated compounds, pesticides, freons and foamers, oven cleaners, unknowns. These should be lab-packed and managed as hazardous waste.
- → Sort containers by size and puncture similar sizes at the same time. You may wish to puncture containers with solvents, degreasers, and/or lubricants last to help clean the device.
- \rightarrow Operate only in an open, well-ventilated area. Avoid confined spaces.
- → Collect liquids in an appropriate hazardous waste container.

NOTE

According to ADEM Admin. Code r. 335-14-2-.01(7), a container is empty if:

- 1) All materials have been removed that can be using common practices;
- No more than one inch of residue remains in the bottom or no more than 3% by weight of the total capacity remains in the container;
- 3) The internal pressure is at or near atmospheric pressure; and
- 4) It did not contain an acute hazardous waste.

WHAT IS THE PREFERRED MANAGEMENT METHOD FOR AEROSOL CONTAINERS?

- Empty the container, either through normal use or by puncturing.
- When puncturing a container, collect both the liquid and the gas in an appropriate collection device.
- Send the empty container to a scrap metal recycler.
- Dispose of the collected residues appropriately, based on their regulatory status of either a solid or hazardous waste.
- While landfill disposal of the empty containers is an acceptable alternative, it is the least preferred option.

HOW SHOULD I MANAGE AEROSOL CONTAINERS THAN CANNOT BE EMPTIED?

- First try to return or exchange malfunctioning aerosol containers. Malfunctioning aerosol containers returned to the supplier or manufacturer are considered "products", not "wastes".
- Non-empty aerosol containers that cannot be returned or exchanged must usually be managed as a hazardous waste, depending on the specific contents.

HOW CAN I REDUCE MY AEROSOL CONTAINER WASTE?

- ✓ Determine whether or not a product is needed. Could the process using the aerosol be eliminated?
- ✓ If required, choose a non-hazardous product, or the least hazardous product, that will do the job.
- \checkmark Use only as much as is needed.
- ✓ Store aerosol containers away from moisture, sunlight, and extreme heat or cold.
- \checkmark Follow the label instructions to clean the nozzle after each use.
- ✓ Use the entire contents of a container before buying others. Purchase according to demand so that the product's shelf life does not expire.
- Consider purchasing products in bulk and using either a refillable container with compressed air as the propellant or a non-aerosol pump applicator.

WHERE CAN I GET ADDITIONAL INFORMATION?

ADEM Administrative Code Division 14 - http://www.adem.alabama.gov/Regulations/regulations.htm

ADEM Guidance - http://www.adem.alabama.gov/LandDivision/Guidance/guidance.htm :

Hazardous Waste Determination

Hazardous Waste: The Basics

Notification of Regulated Waste Activity

ADEM Publications - http://www.adem.alabama.gov/Publications/RCRA/RCRA.htm :

RCRA Small Quantity Generator Handbook

Telephone:

ADEM Ombudsman •••••••••••••••••800-533-ADEM (2336)

Hazardous Waste Compliance Inspectors • • • 334-271-7730

Internet:

http://www.adem.alabama.gov

http://www.epa.gov