



## Recycling and Disposal of Aerosol Cans Technical Guidance Document HW-2002-G2

This technical guidance document (TGD) describes management options for typical aerosol cans used in industrial or commercial applications. This document is not intended to cover the management and disposal options for materials in compressed gas cylinders and tanks. Aerosol cans used in household applications are not regulated, but the Kansas Department of Health and Environment (KDHE) encourages homeowners who have non-empty aerosol cans of paint, pesticides, cleaners, etc., to dispose of these materials in an environmentally responsible manner, through their local household hazardous waste (HHW) facility.

### General

Aerosol cans consist of three types of materials: (1) the can, (2) the product, and (3) the propellant. Any or all of these materials may be a hazardous waste, and it is the responsibility of the person who generates the waste to make that determination.

### Cans of Non-Hazardous Products

Aerosol cans that contain, or previously contained, only non-hazardous products may be recycled or disposed of in the regular trash.

### Cans that Contain Hazardous Products

An intact, discarded aerosol can is a hazardous waste if the can contains:

- A U-listed chemical; and/or
- A P-listed chemical or the residue of a P-listed chemical; and/or
- A product or propellant that exhibits one or more of the characteristics of ignitability, corrosivity, reactivity, or toxicity.

KDHE cannot specifically determine whether or not any particular aerosol can will be a reactive hazardous waste. Each generator must consider whether or not its aerosol cans may be reactive hazardous wastes by using knowledge of the product. Generally, KDHE does not believe that most pressurized aerosol cans that are managed under normal conditions will be reactive as defined in 40 CFR 261.23(a)(6).

For more information, please also refer to TGD HW-2011-G1, Hazardous Waste Determinations and Documentation, and TGD HW-2011-G2, Characteristic and Listed Hazardous Wastes.

### Empty Cans that Contained Hazardous Products

Most aerosol cans are considered "RCRA empty" when:

- The product has been expelled from the can and only residue remains; and
- The pressure in the can is at or very near atmospheric pressure at normal room temperature.

Once a can is RCRA empty, it may be recycled or disposed of in the regular trash unless it contained a P-listed chemical. Any aerosol can that contained a P-listed chemical must be managed as hazardous waste even when empty.

### Aerosol Cans that will be Repaired

Some full or partially full non-functioning aerosol cans can be repaired and returned to service and KDHE encourages this practice. If a generator actively tries to repair aerosol cans, the cans that are waiting to be repaired will not be considered a waste. Containers of aerosol cans that are waiting to be repaired are not considered satellite accumulation containers, regardless of where the container is located. If the cans are able to be fixed, they may be returned to service anywhere at that facility.

Cans that cannot be repaired are considered a waste and, if hazardous, should be transferred to a satellite accumulation area until they can be punctured or disposed of. If the cans will be punctured, the satellite accumulation area is typically at or very near the puncturing device.

#### **Use of Aerosol Can Puncturing Devices**

Full or partially full discarded aerosol cans may be punctured to make them more amenable to recycling and/or disposal. If the contents of the can meet the definition of a hazardous waste, the puncturing and draining of those cans is considered to be treatment of a hazardous waste. If the device used to puncture the cans meets the following criteria, this form of treatment does not require a permit:

- The device must be designed for the purpose of puncturing aerosol cans and must capture all components released upon puncturing (must have a filter);
- The device must be operated according to all of the manufacturer's specifications;
- The device must be secured on a container that meets all of the container management requirements of 40 CFR 262.34(a).

Please note that KDHE does not provide any type of certification, approval, or endorsement regarding the design, use, and safety of any equipment.

#### **Containers of Contents Aerosol Cans after Puncturing**

After cans are punctured, the liquid contents will be drained into a container. Generators should make sure that chemicals emptied into the same collection container are compatible with one another. Any gases or liquid materials removed from the cans must be managed according to applicable regulations. If the contents are hazardous, this container is a satellite accumulation container and must meet the requirements for satellite accumulation containers. For more information on the proper management of hazardous waste containers, see TGD HW-2005-G1, "Container Management for Hazardous Waste Generators."

#### **Filters**

Most aerosol cans are pressurized with either flammable gases such as propane or isobutane, or with nonflammable gases such as carbon dioxide. When commercially available equipment is used for puncturing aerosol cans, the propellant is typically vented to a coalescing/activated carbon filter. These filters, when disposed, may be a characteristic or listed hazardous waste. Therefore, the generator must make a hazardous waste determination for these filters prior to disposal.

These are general guidelines only. For information regarding any specific or different management options, you may contact the Bureau of Waste Management at (785) 296-1600 or the address at the top of this document, or visit the Bureau's website at <http://www.kdheks.gov/waste/>.