



Managing Waste Aerosols

Guidance for generators

What are waste aerosols?

Aerosols are chemical products released as a spray or stream from a pressurized container. “Aerosols” include both refillable and disposable non-refillable containers. A *waste aerosol* is an aerosol container that will no longer be used for its intended purpose. It does not include defective products that are returned to the retailer or manufacturer for refund or replacement.

Many waste aerosols still contain unused chemical product and excess propellant even if they seem empty. These waste aerosols may be hazardous because of:

1. The chemical product they contained
2. The ignitable compressed gas used as the propellant

Assume waste aerosols are hazardous until you have evaluated and documented that they are non-hazardous. The Minnesota Pollution Control Agency (MPCA), under the Minnesota Hazardous Waste Rules, regulates accumulation and disposal of hazardous and unevaluated waste aerosols. This fact sheet discusses these requirements.

Minimizing waste aerosols

Proper storage (temperature, humidity) and use (nozzle cleaning) of aerosol products can help make the full volume of chemical contents usable and reduce your generation of waste aerosols. Selecting less toxic chemical aerosol products or aerosols with non-ignitable propellants can also reduce the amount of hazardous waste aerosols you generate. The [Minnesota Technical Assistance Program](#) (MnTAP) has resources to help you to reduce your aerosol waste generation and costs. Contact MnTAP for assistance (see *More information* on page three).

Empty aerosol containers

Some waste aerosols may meet the strict definition of an empty container. Empty containers are exempt from Hazardous Waste Rules, however the definition is stringent and difficult to verify. To be classified as empty, aerosols must meet these three criteria:

1. Contain no compressed propellant (i.e. will release no pressure through an open, working valve)
2. All chemical product that can be dispensed through the valve has been (i.e. will spray no product through an open, working valve)
3. Less than 3% of the product capacity of the container remains

Waste aerosols that meet these standards are sometimes referred to as “RCRA empty.” (RCRA stands for *Resource Conservation and Recovery Act* – federal laws on which Minnesota Hazardous Waste Rules are based.) While RCRA empty containers are not subject to hazardous waste requirements, solid waste haulers may still prohibit their disposal in the solid waste stream. Check with your solid waste hauler before disposing of RCRA empty aerosols in solid waste.

Accumulating hazardous waste aerosols

Remember: You must assume all waste aerosols containers are hazardous unless you have evaluated and documented them to be non-hazardous or RCRA empty.

Accumulate hazardous waste aerosols in a closed container marked or labeled with:

- The words Hazardous Waste
- A clear description of the waste (such as 'Hazardous Waste Ignitable Aerosols')
- The accumulation start date (the date you first stored hazardous waste aerosols in the container)

If you do not generate many aerosols, you may follow satellite accumulation rules to accumulate up to a 55-gallon container of aerosols in one area. When collecting under satellite accumulation rules you may leave off the accumulation start date.

Inspect containers of hazardous waste aerosols at least once each week unless they are satellite accumulation containers under the daily supervision of your employees. Document the inspections.

For more information regarding hazardous waste aerosol container requirements, visit the MPCA website to view hazardous waste fact sheet #1.04/1.05, Steps 4 & 5, [Label and Store Hazardous Waste](http://www.pca.state.mn.us/publications/w-hw1-04-05.pdf), at <http://www.pca.state.mn.us/publications/w-hw1-04-05.pdf>.

Disposing of hazardous waste aerosols

Send hazardous waste aerosols to a permitted hazardous waste disposal facility accompanied by a uniform hazardous waste manifest. Very Small Quantity Generators of hazardous waste (VSQGs) may transport their own waste aerosols to a VSQG Collection Program. To find a collection program in your area, see MPCA hazardous waste fact sheet #2.51, [VSQG Collection Program Requirements for Generators](http://www.pca.state.mn.us/publications/w-hw2-51.pdf) at <http://www.pca.state.mn.us/publications/w-hw2-51.pdf>.

Whether you ship hazardous waste aerosols to a hazardous waste disposal facility or a VSQG Collection Program, or send defective product aerosols back to a retailer or distributor for replacement or refund, ensure you comply with applicable U.S. Department of Transportation (DOT) requirements under the Hazardous Materials Regulations (HMR). For questions regarding the HMR, contact the DOT (see *More information*, page three).

You may also recycle your hazardous waste aerosol containers.

Recycling hazardous waste aerosols

The MPCA allows puncturing of waste aerosols provided you use a device built for this purpose that prevents spatter or release and captures liquid left in the aerosol container. The emptied containers can be recycled as scrap metal. Contain and manage the captured liquid as hazardous waste. Ensure you puncture and mix only aerosols with compatible contents (those that will not combine to create an explosive mixture, release poisonous gases, or create a dangerous situation).

While the MPCA allows unavoidable release of ignitable propellants to the atmosphere during the puncturing process, remember that this can create a breathing and fire hazard. Ensure ventilation is adequate and gases are exhausted sufficiently, as well as making sure employees have satisfactory protective clothing and equipment. Puncturing equipment may be subject to Minnesota State Fire Code requirements or local fire protection ordinances. Check with your local fire marshal for specifics. You may not vent propellant from waste aerosols for disposal except as part of a legitimate puncturing and liquid contents-collection process.

Keep in mind that puncturing some aerosols such as ether, pesticides, chlorinated fluorocarbons (CFCs, commonly referred to as Freon), or corrosive cleaners, may be regulated or limited under other laws or may create dangerous situations.

More information

Guidance and requirements in this fact sheet were compiled from multiple Minnesota Rules in Chapter 7045, and incorporates regulatory interpretation decisions made by the MPCA on April 13, 2011. Visit the Office of the Revisor of Statutes at <https://www.revisor.mn.gov/pubs> to review the Minnesota Rules directly.

Your metropolitan county and the MPCA have staff available to answer waste management questions. For more information, contact your metropolitan county hazardous waste office or your nearest MPCA regional staff. For information about reducing aerosol waste and toxicity, contact the [Minnesota Technical Assistance Program](#) (MnTAP).

Metro County Hazardous Waste Offices

Anoka 763-422-7093
Carver 952-361-1800
Dakota 952-891-7557
Hennepin 612-348-3777
Ramsey 651-266-1199
Scott 952-496-8475
Washington 651-430-6655
Websites [http://www.co.\[county\].mn.us](http://www.co.[county].mn.us)

Minnesota Technical Assistance Program

Toll free 1-800-247-0015
Metro 612-624-1300
Website <http://www.mntap.umn.edu>

Small Business Environmental Assistance

Toll free 1-800-657-3938
Metro 651-282-6143
Website <http://www.pca.state.mn.us/sbeap/>

Minnesota Pollution Control Agency

Toll free (all offices) 1-800-657-3864
Brainerd 218-828-2492
Detroit Lakes 218-847-1519
Duluth 218-723-4660
Mankato 507-389-5977
Marshall 507-537-7146
Rochester 507-285-7343
St. Paul 651-296-6300
Willmar 320-214-3786
Website <http://www.pca.state.mn.us>

Department of Transportation – Minnesota

Hazardous materials 651-215-6330
Website
<http://www.dot.state.mn.us/cvo/hazmat.html>

Department of Transportation – U.S.

Hazardous materials 1-800-467-4922
Website .. <http://www.phmsa.dot.gov/hazmat>