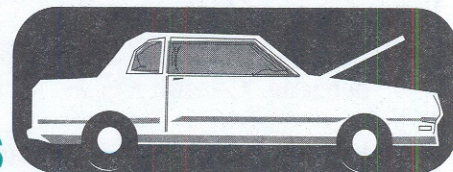


# AUTOMOBILE DEALERS

## FACT SHEET

### Handling and Disposal of Air Filters from Paint Spray Booths



#### What are air filters from paint spray booths?

Air filters from paint spray booths, or "paint filters," are used to trap solids that are produced through general painting operations. Depending on the contents of the paints used, the filters could become hazardous due to toxicity (e.g., due to heavy metals such as chromium, copper lead in paints; MEK and benzene in solvents). Paint filters are typically changed every few weeks to few months -- depending on the amount of painting and the painting process used.

#### How are air filters from paint spray booths typically disposed?

Disposal practices for these paint filters are not consistent across the U.S. Filters are often disposed with the regular trash after they are dry (with and without testing). Some shops dispose of these filters as hazardous waste (without testing) to avoid testing costs. At least one major waste management company treats all filters from spray booths as hazardous. The filters are collected, shredded, and sent to a cement kiln for burning as part of a solid fuels program.

#### Are air filters from paint spray booths hazardous waste?

Basic federal law requires that any solid waste that is potentially hazardous be tested for hazardous waste characteristics using the toxicity characteristic leaching procedure (TCLP) prior to disposal as non-

hazardous waste. Paint filters, therefore, due to their potential toxicity from exposure to heavy metals and/or hazardous solvents, may require testing for hazardous waste characteristics. If the paint filters do not test as hazardous, they can be disposed as industrial nonhazardous solid waste under federal law.

States have differing interpretations of disposal requirements for this waste stream, as well as differing regulations and policies for disposal of nonhazardous industrial wastes. In many states, TCLP testing of this waste stream is required to make a hazardous waste determination (e.g., *California, Connecticut, Illinois, Minnesota, Vermont*). In such states, testing and disposal requirements largely depend on the types of operations and paints used--facilities that use hazardous paints and solvents would be required to test filters before disposing as nonhazardous wastes. Of-

ten, Material Safety Data Sheets (MSDSs) detailing paint makeup are allowed to be used to limit the TCLP tests required. Other states note that dry filters can be disposed as nonhazardous waste (e.g., *Pennsylvania, Wisconsin*).

Even if determined to be nonhazardous, disposal of paint filters may still fall under special disposal requirements in some states. For example, in *Illinois*, nonhazardous spray paint booth air filters must be handled as special waste. In *Iowa*, filters may be disposed in landfills once a Special Waste Authorization (SWA) is obtained, which includes initial TCLP testing and periodic testing thereafter. In some cases, the testing and SWA requirements may be waived based on generator knowledge, provided they are using powder paints or paints that either do not contain solvents or contain "nonhazardous" (e.g., aqueous-based) solvents.

#### DO AIR FILTERS FROM PAINT SPRAY BOOTHS TYPICALLY TEST AS HAZARDOUS OR NONHAZARDOUS?

- The U.S. Postal Service's TCLP data have, in the past, shown these paint spray booth filters to be hazardous, largely due to chromium from the use of a chromate primer. Lead may also be a concern. The elimination of the use of chromate primer and paint containing chromium has changed this waste stream's TCLP test data to mainly nonhazardous.
- Test data from a few states demonstrate that paint filters typically can pass TCLP. It was noted, however, that the ability to pass TCLP was partially dependent on the type of paint being captured and the level of material captured in the filter, and the dryness of the filter.



## RECOMMENDED BEST MANAGEMENT PRACTICES

- Minimize hazardous paint filter generation, when possible, by using high volume/low pressure spray equipment, improving painting techniques, using nonhazardous paints, allowing filters to dry, using reusable types of filters, and/or using water wall paint booth filters.
- If necessary, periodically test filters for hazardous waste characteristics, e.g., for the eight metals, MEK, and benzene. Consult MSDSs for the paints used to limit the constituents required to be tested.
- If filters test as hazardous, have waste picked up by a licensed hauler/waste management company for disposal at a hazardous waste incinerator or landfill.

Finally, in some states, the regulatory status of this waste stream has not yet been defined (e.g., *Florida, Massachusetts*).

### How should dealerships dispose of air filters from paint spray booths?

Paint filters that test as hazardous or are assumed to be hazardous must be disposed in accordance with hazardous waste regulations. One option is for these filters to be picked up by a licensed hauler/waste management company in your area, who will then either dispose of the filters in a hazardous waste incinerator or landfill, or, in some cases, burn them as fuel at a cement kiln.

After drying, nonhazardous filters can usually be disposed in a local sanitary landfill. In some states, this type of industrial waste may be required to be handled and disposed in accordance with "special" or "residual" waste requirements (e.g., *Illinois*).

### How can dealerships minimize paint filter disposal costs and liability?

- Change painting processes/techniques to reduce the amount of filters generated.
  - Use high volume, low pressure spray equipment to reduce overspray.
  - Avoid spraying far past the ends of the object by painting the edges first.
  - Use a 50% overlap for each pass.
- Avoid the potential for hazardous substances to be collected in filters.
  - Use nonhazardous paints and primers. Use paints without chromium, zinc, or lead pigments, whenever possible. Avoid exotic paints and paints containing heavy metals.
  - Review MSDSs from the paint manufacturer to determine hazardous constituents in the paint in order to determine which paints would be better to use.
- Use alternative filters/filtering techniques.
  - Try styrofoam paint filters that can be cleaned and reused. After becoming unusable, they can be dissolved in solvent, which could be distilled or recycled. Paint waste, of course, must still be disposed of properly.
  - Try metal filters that can be cleaned in a solvent bath. Distill or recycle the solvent.
  - Consider using a water wall paint booth filter that draws air through a curtain. This way, paint spray is trapped in the water and can then be skimmed off the top.
- Allow paint filters to dry completely.

### Do you need more information?

Contact your state environmental agency or state dealer association for state-specific regulatory interpretations. Some pollution prevention/recycling/reuse practices encouraged in some states are not allowed in others. For more information on successful best management practices and for state agency contacts, call your state automobile dealers association or:

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