



# Hazardous Waste Management



Auto body shops typically generate several kinds of potentially hazardous waste, including waste solvent and coatings, contaminated rags, wipes, and absorbents, empty containers, used oil, waste antifreeze, sanding or grinding dusts, and contaminated wash waters. Some wastes clearly must be managed as hazardous, while others may require the owner or operator to make that determination. Following is a list of auto body shop wastes that are hazardous or may be hazardous.

Waste	Hazardous?	Why?
Solvents or mixed solvent-paint waste	Yes	Ignitable, toxic, listed
Solvent recycling still bottoms (pancake)	Yes	Toxic, listed
Used alkaline or acid cleaning solutions	Yes	Corrosive, possibly toxic
Lead-acid batteries	Yes	Corrosive, toxic
Used oil	Yes	California law requires that used oil be managed as a hazardous waste.
Wipes or rags	Maybe	Toxic, ignitable, depending on what you use to clean
Other cleaning solutions	Maybe	Toxic, corrosive
Coatings, including basecoats and primers and unused multi-component coatings (paint hardeners, retarders, catalysts)	Yes	Toxic (metals), ignitable Note: fully cured paint that remains in filters and disposable cups may not be hazardous, depending on the metals contained in the coating.
Sanding dusts	Maybe – assume hazardous OR test to prove otherwise.	Toxic (metals) DTSC testing has found that sanding dust, especially dust generated from sanding primers, is often hazardous because of metals content. However, dust from sanding filler (bondo) is usually non-hazardous. Manage sanding dust as a hazardous waste or conduct testing to prove that it is non-hazardous.
Used antifreeze	Yes	Toxic (metals, ethylene glycol)
Wash waters	Maybe	Toxic
Used containers (including paint mix cups)	Maybe	Toxic, ignitable, corrosive. Used containers are not hazardous if they meet the regulatory definition of “empty” (see discussion below).

Waste	Hazardous?	Why?
Waste paint booth filters	Maybe	Toxic Paint booth filters can be hazardous because of the paint they trap or glues, binders, or flame retardants that may be in the filter.
Chemical paint stripper (methylene chloride)	Yes	Toxic, listed (resulting paint sludges contain metals from paint, chlorinated solvents)

**What makes a waste hazardous?** A waste is hazardous if it exhibits a certain characteristic or it is listed as a hazardous waste in regulations, as described briefly below:

**Characteristics:**

- **Ignitable** (catches fire under certain conditions): it has a flash point less than 140°F.
- **Corrosive** (eats or wears away metals and other materials): it has a pH less than 2 or greater than 12.5 (pH is a measure of acidity or alkalinity).
- **Toxic** (poisonous): it contains toxic metals (cadmium, chromium, lead, copper, barium, nickel, zinc) or organics, as specified in regulations, or is otherwise harmful or fatal to humans or wildlife when eaten, inhaled, or absorbed through the skin.
- **Reactive Substance** that is unstable and can react violently or explode under standard conditions, or a substance that reacts violently and/or releases toxic gases on contact with water.

**Listed wastes** are specifically identified in regulations. Listed wastes include certain used cleaning and degreasing solvents (these are known as F-listed wastes).

For the actual regulatory descriptions of what makes a waste hazardous and to see all listed wastes, go to *Article 4, Chapter 11, Division 4.5, Title 22, of the California Code of Regulations*.

Filter cake generated from on-site solvent recycling may be a listed hazardous waste. As the waste generator, you are responsible for determining if the filter cake is hazardous. See the section ‘Hazardous Waste Determination’ below for more information.



### Resource Conservation And Recovery Act (RCRA) Versus Non-RCRA Wastes:

Hazardous wastes regulated by the federal government, as well as in California, are commonly known as “RCRA” wastes. These include certain characteristic wastes and all the listed wastes, like mixed solvent/paint waste and solvent recycler still bottoms. Hazardous wastes regulated only under State laws are usually called “California only” or “non-RCRA” wastes. California’s hazardous waste laws include certain metals, such as copper, nickel, and zinc, which are not regulated under RCRA. Manufacturer’s product information often does not take these differences into consideration, and may state that their products have no hazardous constituents, but these metals should be described on the Material Safety Data Sheets (MSDS).

High concentrations of these metals have been found in auto body shop waste streams like sanding dust, paint booth filters, waste paints, and wastewater sludge. When testing to determine if a waste is hazardous, you must test these waste streams for metals regulated by California, to see if they exceed California’s regulatory limits.

Automotive refinish coatings used in California should not contain cadmium or hexavalent chromium because air toxic control regulations prohibit their sale and use. Because this ban does not allow the use of lead chromate pigment, coatings used in California would also not normally contain lead. However, waste coatings may be hazardous because they contain zinc or barium, except those containing barium sulfate. Zinc chromate primers have been used in aircraft, structural steel and heavy equipment that is used in a corrosive environment.

If you generate less than 220 pounds (approximately 27 gallons of liquid) of RCRA hazardous waste per month, you are not subject to many of the federal rules, but are still subject to the California hazardous waste rules.

### Recycling Exemptions And Exclusions:

Certain hazardous waste treatment processes may be exempt from regulation based on how the waste is recycled. For example, on-site recycling of mixed solvent and paint waste (RCRA hazardous waste) does not require a hazardous waste treatment permit if the reclaimed solvent is used on-site. The owner/operator of the shop is still responsible for meeting hazardous waste generator requirements.



California’s recycling laws can be confusing. Check with your local hazardous waste regulatory agency before managing your wastes according to recycling exclusions or exemptions. The DTSC Public and Business Liaisons at 800-728-6942 can also provide guidance in these areas. Most of the requirements needed to qualify for the hazardous waste recycling exclusions or exemptions are in Section 25143.2 of *California’s Health and Safety Code (Title 20, Chapter 6.5)*

### Empty Containers:



DTSC has specific regulations for empty containers that previously held a hazardous material or hazardous waste. Empty containers that meet the regulatory definition of empty in Section 66261.7, Title 22, California Code of Regulations are not regulated as hazardous waste. Essentially, a container is empty when no liquid can be poured or drained from the container, or when no non-liquid waste can be removed by physical means, including scraping and chipping, but not rinsing. Special provisions apply to a variety of containers, such as containers of 5 gallons or less, containers that held acute

or extremely hazardous waste, containers made of absorptive material, gas cylinders, aerosol cans, etc. For a full explanation, read DTSC's "Managing Empty Containers" fact sheet, or contact your local hazardous waste control agency for assistance.

### Hazardous Waste Determination

You can determine if you have hazardous waste by two methods:

**Φ Knowledge.** You can use your knowledge of the material or the process that generates the waste to decide if it is hazardous. Use a product's MSDS and other product information to help identify characteristics or constituents that may make a waste hazardous.

Uncured epoxies or urethane coatings may exhibit two or more hazardous characteristics.

Many pigments contain hazardous metals,

and the carriers for the pigments may also contain toxic materials such as isocyanates, MEK, or benzene in the formulation. The hazardous materials in the carrier can become non-hazardous after they have been mixed and cured, but the metals in the pigment do not change. Remember that a nonhazardous product may become a hazardous waste because of the process it goes through or the contaminants it picks up. **Be sure you have data to support your determination and keep a record of it.**

Examples of using your knowledge of materials and processes to make a hazardous waste determination:

Check the MSDS of your coatings and tints to see if they use pigments that have toxic metals in them. Some of the metals on California's list are lead, cadmium, chromium, copper, and zinc. A complete list is published in title 22, section 66262.34. If the pigments contain toxic metals, then the paint, filters and sanding waste most likely will contain those metals. Your determination would be that these wastes are hazardous.

Your unused paint and hardeners, reducers, etc. contain solvents that are listed in title 22. If discarded unused, the waste will be hazardous due to the solvents and epoxy components.

**Φ Waste Analysis.** You can have a waste tested by an accredited lab to determine if the waste exhibits a characteristic of a hazardous waste, or contains listed hazardous wastes. To find an accredited lab that tests environmental samples, check the yellow pages for "Laboratories, Analytical," check the list on the Department of Health Services web site: <http://www.dhs.ca.gov/ps/ls/elap/html/lablist.htm> or call (510) 540-2800.

For guidance in identifying hazardous waste, contact your local hazardous waste agency or business assistance center, or the DTSC Public and Business Liaisons at 800-728-6942.

### How Do You Manage Hazardous Waste?

For guidance in managing hazardous waste, refer to DTSC's Fact Sheet *Hazardous Waste Generator Requirements*, and the hazardous waste generator regulations in Chapter 12, Division 4.5, Title 22, *California Code of Regulations*. You should also review any publications of local agencies regulating hazardous waste, such your Certified Unified Program Agency (CUPA).

**Auto body shop owners or operators are responsible for determining if they generate hazardous waste and for managing it accordingly. There may be significant fines for failure to meet this responsibility.**

## Pollution Prevention in Auto Body and Paint Shops, September, 2006

### Every shop that generates hazardous waste must:

- Obtain a **hazardous waste generator identification number**. The application for identification numbers is on the DTSC web site, or you can ask the DTSC Public and Business Liaisons to fax or mail you a copy. Read the instructions on the DTSC application or the DTSC Fact Sheet “EPA Identification Numbers” to help you determine whether you need a federal or a State ID number. If you generate a total of less than 100 kilograms of hazardous waste per month (about 220 pounds or 27 gallons), you can apply for a California number.
- Limit hazardous waste storage time to the applicable accumulation period. Consult the following table for the time limit that applies to your situation.

<b>If You Generate:</b>	<b>Your Storage Time Cannot Exceed:</b>
More than 2,200 lbs per month*	90 days
2,200 lbs per month or less*	180 days
2,200 lbs per month or less and you must transport it more than 200 miles for treatment, storage or disposal*	270 days
Up to 55 gals of a hazardous waste, one quart of an acutely / extremely hazardous waste (only at the point of accumulation)	365 days

\* Note: If you generate less than 220 pounds of hazardous waste per month (this applies to most auto body shops), your accumulation period actually starts when you reach the 220 pound mark. Most shops set a regular schedule for waste pickup because it's not always easy to tell when you hit that mark.

### Ⓢ Store hazardous wastes as required by regulations. This includes:

- Containers that are in good condition and compatible with the material they are holding. To be compatible, a container cannot react with or be damaged by the material it is holding.
- Label each container with a hazardous waste label that includes:
  - The date you start accumulating hazardous waste in that container;
  - The words, HAZARDOUS WASTE;
  - The composition and physical state (solid or liquid) of the waste;
  - The hazardous properties of the waste (toxic, ignitable, corrosive, reactive);
  - The name and address of the generator.
- Keeping containers closed except when adding or removing material;
- Do not mix incompatible waste streams in the same container;
- Separate incompatible wastes by means of a dike, berm, wall, or other device;
- Keep ignitable or reactive wastes at least 50 feet from the facility's property line [Your shop may not be large enough. Ask your CUPA inspector for advice on complying with this requirement]
- Inspect storage areas at least weekly for leaks and spills.



## Pollution Prevention in Auto Body and Paint Shops, September, 2006

① **Develop emergency procedures** for spills and hazardous waste accidents. Refer to all local agency guidelines and DTSC's Hazardous Waste Generator Requirements fact sheet for complete requirements. Most of the requirements will be satisfied by following your CUPA Hazardous Materials Business Plan requirements. At a minimum, your facility should have:

- An internal communication or alarm system to immediately alert personnel in case of an emergency;
- A telephone, two-way radio, or similar device for calling for assistance to local police departments, fire departments, or state or local emergency response teams;
- Portable fire extinguishers, fire control equipment, spill containment equipment, and decontamination equipment;
- Adequate water to supply water hose streams, or equipment, or automatic sprinklers, or water



- Adequate aisle space to allow the movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment;
- An emergency coordinator, either on the premises or on call at all times;
- Posting of emergency information next to the telephone.
- Train employees to understand proper waste handling and emergency procedures.

① **Transport hazardous wastes as required by regulations.** There are three ways to ship your waste to a treatment or recycling facility:



- Use a hazardous waste hauler that participates in the "Consolidated Manifest System." This system is easiest because the hauler gives you a receipt for the waste and you do not need to mail copies and track shipments. You can ship paint wastes, oil, and solvent waste with the Consolidated Manifest System.
- Use a hazardous waste hauler who ships waste on a Hazardous Waste Manifest (paperwork that accompanies hazardous waste from the point of generation to the point of ultimate storage, disposal, or treatment), that names you as the generator.

## Pollution Prevention in Auto Body and Paint Shops, September, 2006

- Take your hazardous waste to a local “Small Business Waste” program. Many local waste agencies operate a small business waste program and allow you to bring small amounts (usually less than 50 lbs or 5 gallons) to the local household hazardous waste facility for a nominal charge. Call your local household hazardous waste agency to see whether they have a small business program.
- Use only transporters and transfer, treatment, storage, or disposal facilities that are authorized by DTSC and have obtained a hazardous waste identification number;
- Observe federal Department of Transportation (DOT) requirements for packaging, labeling, and marking, and transporting your wastes only in vehicles appropriately placarded. A licensed transporter will be able to help you comply with these requirements.



*Hazardous Items*

Some wastes have special requirements if they are being sent off for recycling. Lead acid batteries and used oil filters can be handled and shipped as non-hazardous materials as long as they are going to a recycler and are managed according to their special requirements. See the DTSC’s “Used Oil and Oil Filter Management”, and “Management of Spent Lead-Acid Batteries”. Reusable shop rags and uniforms that are contaminated with hazardous materials can be sent to a commercial laundry service for cleaning and reuse.

### **Hazardous Waste Regulatory Requirements**

For information on regulatory requirements contact your local CUPA online at:

[http://www.dtsc.ca.gov/InformationResources/local\\_contacts.cfm](http://www.dtsc.ca.gov/InformationResources/local_contacts.cfm)

or contact the Department of Toxic Substances Control (DTSC) at (800) 728-6942,

[http://www.dtsc.ca.gov/ContactDtsc/duty\\_officers.cfm](http://www.dtsc.ca.gov/ContactDtsc/duty_officers.cfm)

**To Get An EPA ID Number, Contact:**

DTSC  
Generator Information Services Unit  
(916) 255-1136  
(800) 618-6942

**For additional information on auto body and paint shop pollution prevention practices and a list of available publications contact:**

DTSC  
Office of Pollution Prevention and Technology Development  
P.O. Box 806  
Sacramento, CA 95812-0806  
(916) 322-3670  
(800) 700-5854  
<http://www.dtsc.ca.gov/PollutionPrevention/index.cfm>

