



# Focus

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## Chlorofluorocarbons (CFCs) and the Auto Repair Shop

### **Chlorofluorocarbons (CFCs)**

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Chlorofluorocarbons (CFCs, freon, R-12, R-22) are a family of chemicals that are chemically stable, nonflammable, and noncorrosive. Originally developed in the 1930s and 1940s, these chemicals are used in a variety of industrial and consumer applications, including refrigeration, air conditioning, foam insulation, and solvents. One of the largest uses of CFCs in the United States is of the refrigerant R-12, used in automobile air conditioners. R-12 in motor vehicles accounts for more than 20 percent of all CFC use in this country.

CFCs do not break down in the earth's lower atmosphere, but drift slowly upward into the upper atmosphere. These facts, coupled with their role in depleting the ozone layer, underscore the importance of controlling CFC emissions.

### **Laws on chlorofluorocarbons**

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Congress and the state legislature have passed requirements to control air pollution from CFCs. This information sheet covers only those laws that affect the automotive trade.

#### **Federal requirements – Clean Air Act**

Federal law has banned the production of R-12 since 1995. It also requires the labeling of products that contain CFCs, and taxes CFCs.

#### **Approved equipment**

Technicians repairing or servicing motor vehicle air conditioners must use Environmental Protection Agency (EPA) approved recovery or recover/recycle equipment. Approved recover/recycle equipment must meet the technical specifications of Society of Automotive Engineers (SAE) Standard J-1990. It must also have the capacity to purify used refrigerant to SAE Standard J-2209 for safe and direct return to the air conditioner following repairs.

Recover-only equipment must meet SAE Standard J-2209. After removing the CFCs from the system, technicians are required to either recycle the used refrigerant on-site, or send it to an off-site reclamation facility.

#### **Technician training and certification**

Technicians who perform a service that may release refrigerant must be trained and certified by an EPA-approved organization. A list of approved programs is available from EPA (see telephone number on page 3).

- All service shops must certify to EPA that they own approved equipment and that technicians using the equipment are certified. If refrigerant is recovered and sent to a facility, the name and address of that facility must be retained.
- Service records must be kept for three years.

### **Other requirements**

- Shops servicing motor vehicle air conditioners must recycle or properly dispose of CFC refrigerant.
- Technicians servicing motor vehicle air conditioners must be certified by an EPA approved testing program.
- Auto repair shops need to acquire and use EPA approved/certified recycling or recovery equipment.
- Recycling equipment must be certified by an EPA approved lab. At the present time, Underwriters Laboratory (UL) is the only group approved by EPA to certify refrigerant recycling equipment.
- Refrigerants packaged in containers of less than 20 pounds may be sold only to a certified technician, or to an employee designated to purchase refrigerant for a company that has a certified technician.
- All auto repair shops that perform a service that may release refrigerant must certify to EPA that certified equipment has been acquired and is being used, and that all persons authorized to use the equipment have been properly certified.
- CFCs must be recovered and/or recycled whenever an air conditioner may release CFCs – whether you run a business servicing air conditioners or not. This means that wrecking yards, collision shops, and auto repair shops must be prepared with certified equipment and trained staff if they ever remove or empty air conditioners.
- Any person or shop that services, repairs, or disposes of any motor vehicle air conditioning system; commercial or industrial air conditioning, heating, or refrigeration system; or consumer appliance must capture and recycle the refrigerant in those systems.
- No one may sell or purchase refrigerant in a container designed for consumer recharge of motor vehicle air conditioning systems.
- Non-essential products containing CFCs or other ozone depleting chemicals are banned. Some “Fix a Flat” products and air horns use CFCs and they are now illegal to sell or purchase.
- It is against state and federal law to use an unapproved flammable substance in any automobile air conditioning system.

CFCs are classified as a dangerous waste in Washington State. However, the dangerous waste regulation (Chapter 173-303 WAC) has been amended to conditionally exempt CFCs when they are reclaimed or recycled. This means that generators will no longer be required to manifest or transport their spent CFC refrigerants as dangerous waste when the CFCs are being reclaimed or recycled. (Refer to WAC 173-303-120 and -506 for more detail.) However, any cross-contamination renders the recovered refrigerants un-recyclable, and they must then be treated as a dangerous waste.

### **More information**

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If you have questions or complaints about CFCs, please contact:

EPA Hotline

1-800-424-4EPA