

### Ozone Layer Depletion - Regulatory Programs

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### **Homeowners Frequently Asked Questions**

Homeowners may have various types of appliances that contain HCFC-22 (also called R-22) or its blends, including window units, dehumidifiers, central air conditioners, air-to-air heat pumps, ground-source heat pumps, and ductless air conditioners. The following information will help homeowners make informed decisions when purchasing, servicing, or disposing of air conditioners or other equipment.

### How can I find out if my home air conditioner contains R-22?

Most air conditioners have a nameplate on the unit that identifies the refrigerant it contains and other information, such as safety certifications and electrical ratings. For a central air conditioner, the nameplate is usually on the outdoor condensing unit. If a nameplate is not provided, there are several other ways that you may be able to obtain the information. You could check your owner's manual for the information. The person/company that sold or services your air conditioner would likely know what refrigerant it uses. Or, if you know the manufacturer and model number, you could call the manufacturer or check its web site.

### Am I allowed to purchase a new home air conditioner that contains R-22?

Yes, air-conditioning systems that use R-22 currently are still available for purchase. Consumers may purchase a system that contains R-22, but should be aware that supplies of R-22 will be more limited after 2010. Also, as R-22 is gradually phased out, non-ozone-depleting alternative refrigerants are being introduced and will become more common. In addition to the refrigerant type, you should consider energy efficiency, along with performance, reliability, and cost in deciding which type of air conditioner to purchase.

## Will I be required to stop using R-22 in my home air conditioner or other equipment?

No, you will not be required to stop using R-22 and you will not be required to replace existing equipment just to switch to a new refrigerant. The lengthy phaseout period provides time to switch to ozone-friendly refrigerants when you normally would replace your air conditioner or other equipment. This transition is important because supplies of R-22 will be more limited after 2010, which may cause the price of R-22 to increase. Starting in 2020, new R-22 will no longer be produced, so consumers will need to rely solely on recycled or stockpiled quantities to service any systems still operating after that date.

#### Are alternatives to R-22 available?

Yes, alternative refrigerants that do not harm the ozone layer are available and widely used in the air-conditioning and refrigeration industry today. Through its <u>Significant New Alternatives Policy (SNAP) Program</u>, EPA has found acceptable a number of alternatives to R-22 that do not deplete the ozone layer. R-410A, an HFC refrigerant blend, is the most common. Some common trade names for R-410A include GENETRON AZ-20®, SUVA 410A®, and Puron®. EPA maintains a full <u>list of acceptable substitutes</u> for household and light commercial air-conditioning.

# Should I purchase a new air-conditioning system or heat pump with R-22 or with an alternative, ozone-friendly refrigerant?

When deciding to purchase new equipment, homeowners need to consider several key factors, such as energy efficiency, performance, reliability, cost, and the ozone-friendly options that are available. After 2020, the servicing of R-22-based systems will rely on recycled or stockpiled refrigerants. For the next 10 to 15 years, R-22 should continue to be available for all systems that require it for servicing. Consumers should be aware that the price of R-22 might increase as supplies decrease beginning in 2010. EPA's ozone web site provides a comprehensive overview of what consumers should know about refrigerants when purchasing an A/C system or heat pump.

# I want to purchase a system that uses alternative refrigerants. How should I select an appropriate dealer and contractor?

Not all contractors are properly trained. EPA does not require certification for technicians that service appliances with non-ozone depleting substitute refrigerants. Consumers should be aware that dealers of systems that use substitute refrigerants should be trained in installation and service techniques required for use of that substitute refrigerant. The transition away from ozone-depleting R-22 to systems that rely on replacement refrigerants like R-410A has required the redesign of heat pump and air-conditioning systems. New systems incorporate compressors and other components specifically designed to use specific alternative refrigerants. With these significant product and production process changes, testing and training has also changed.

# How important is it to buy a new air-conditioning system that is more efficient? Does energy efficiency depend on what type of refrigerant is used?

Purchasing an energy-efficient system allows a homeowner to save on energy costs and protect the environment. Even if your air conditioner is only ten years old, you may save significantly on your cooling energy costs by replacing it with a newer, more efficient model. Products with <u>EPA's Energy Star® label</u> can save homeowners 10% to 40% on their heating and cooling bills every year. Energy Star® qualified systems are available for both R-22 and R-410A systems.

The U.S. Department of Energy specifies the minimum efficiency of air conditioners sold in the United States. For central air conditioners and air-to-air heat pumps, efficiency is measured by the <u>seasonal energy efficiency ratio</u> (SEER). The higher the ratio, the more efficient the equipment, and equipment that displays the Energy Star® label must have a minimum seasonal energy efficiency ratio that is significantly higher than required by law.

You should consider energy efficiency, along with performance, reliability, and cost, in making your decision. And don't forget that when purchasing a new system, you can also speed the transition away from ozone-depleting R-22 by choosing a system that uses ozone-friendly refrigerants.

### What if I own an air conditioner that needs R-22 added after 2010?

You may continue to have your equipment containing R-22 serviced after 2010, although only a limited amount of new R-22 will be manufactured (to meet the servicing needs of equipment manufactured on or before December 31, 2009). After 2020, production of R-22 will be prohibited and only <u>recovered</u>, <u>recycled</u>, or <u>reclaimed</u> supplies of R-22 will be available for servicing existing equipment. So, in the future, R -22 supplies will be more limited and costs may rise.

# I own an air-conditioning unit that contains R-22 and I want to minimize its impacts on the ozone layer. What can I do?

If you have equipment that contains R-22, the most important thing you can do is to maintain your unit properly. Major leaks rarely develop in units that are properly installed and maintained; however, appropriate servicing is necessary to minimize potential environmental damage and maintenance costs. For more information on what regular service your unit requires, please consult your owner's manual or contact the company that sold or services your unit.

It is important to select a reliable service contractor. Technicians must have EPA certification to service equipment containing R-22. It is illegal to intentionally vent (release) any refrigerant when making repairs. Therefore, technicians are required to use refrigerant recovery equipment during service. Also, request that service technicians locate and repair leaks instead of "topping off" leaking systems. This will help ensure that your system operates at its optimal level, which reduces emissions of refrigerant and saves you money by reducing your household energy use and avoiding additional repairs in the future.

### How should I dispose of a residential appliance that contains R-22?

There are a number of options for disposing of appliances. If you purchase a new appliance, such as a refrigerator or freezer, your retailer will likely remove the old one. Landfills, scrap yards, and metal recyclers may not accept appliances if they still contain refrigerant, however, they are still responsible for removing or verifying removal of refrigerant before they take custody. In some jurisdictions, the appliance owner may have to pay for recovery of refrigerants prior to disposal, or deliver the used appliance to the scrap yard or landfill. In such instances, the appliance cannot be altered in a way that will release refrigerant into the atmosphere. For example, appliance owners should not cut refrigerant lines or remove compressors in order to have their appliances accepted by a disposal facility. EPA requires the safe disposal of ozone-depleting refrigerants in appliances to ensure that they are removed safely and will not harm the environment. A summary of EPA's appliance safe disposal program is available online. Please contact your local Department of Public Works or landfill to check if they offer pick-up/drop-off appliance disposal options.

Homeowners

Owners of Comfort Cooling, Commercial, and Other Refrigeration and Air-conditioning Equipment

Technicians and Contractors

Equipment Manufacturers, Importers, and Exporters updated on Tuesday, April 14th, 2009. Additional Information Sources