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## The Clean Air Act: A Homeowner's Guide to more Eco-Friendly AC Refrigerant R-410A



The Clean Air Act mandates that all HVAC equipment manufacturers cease producing equipment using R-22 refrigerant on January 1, 2010

### What is the Clean Air Act?

The Montreal Protocol, an international environmental agreement, requires the production phase out of a number of substances believed to be responsible for ozone depletion. The Montreal Protocol is carried out in the United States through the Clean Air Act, which is a federal law implemented by the U.S. Environmental Protection Agency (EPA) to execute and enforce regulations that reduce air pollutant emissions.

### How does the Clean Air Act impact heating and cooling systems?

The portion of the Clean Air Act that applies to the Heating, Ventilating & Air Conditioning (HVAC) industry encourages the development of "ozone-friendly" substitutes for chemicals that contain ozone-destroying chlorine, which are called hydrochlorofluorocarbons (HCFCs). The chemical refrigerant of choice for more than four decades, referred to as "R-22," is in the HCFC category. R-22 is widely used in heat pumps and AC condensing units to heat and cool homes.

### Since the Clean Air Act ultimately requires the end of R-22 refrigerant production, what will the HVAC industry use?

R-410A is an "ozone-friendly" refrigerant designed to replace R-22. R-410A refrigerant does not contribute to ozone depletion.

### What is the timeframe for the R-410A switchover?

The Clean Air Act mandates that all HVAC equipment manufacturers cease producing equipment with R-22 refrigerant on January 1, 2010, and chemical manufacturers cease producing R-22 refrigerant on January 22, 2020. Along with prohibiting the production of chemicals deemed harmful to the ozone, such as R-22 refrigerant, the Clean Air Act also mandates that no refrigerant be released into the atmosphere during installation, service or retirement of equipment.

### How long will current R-22 AC and heat pump products be available?

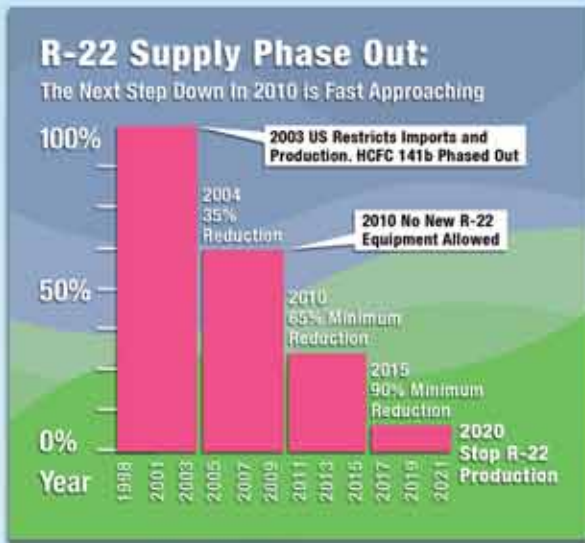
Some HVAC Distributors, Contractors and Homebuilders will continue to sell and install R-22 AC and heat pump products manufactured prior to January 1, 2010, as long as supplies last.



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### Do R-410A products cost more?

Currently, R-410A products are slightly more expensive than similar R-22 products. One reason is that R-410A refrigerant is more expensive to produce, but that expense is expected to decline as R-410A is produced in higher volumes and R-22 is phased out and is increasingly less available.

### How does the R-22 phase-out affect Homeowners with existing R-22 systems?

There is no need for homeowners to panic if they currently have a heating and cooling system equipped with R-22 refrigerant. Chemical manufacturers can still produce R-22 to service existing systems until Jan 1, 2020. After this date, many in the industry have estimated that there will be adequate R-22 supplies available for servicing equipment for the next 20 years. However, as this supply declines, servicing R-22 systems will become increasingly expensive.



### What if I need to replace a portion of my heating and cooling system?

If a homeowner has an existing outdoor unit that is in need of replacement, it is recommended that the indoor unit be replaced (coil, furnace or air handler) at the same time. The reason for this is so that the system will be properly matched based on the manufacturers approved match-up data. A system that is not properly matched will lose efficiency and be more expensive to operate and maintain. This is especially true for homeowners who have outdoor units that are below the current 13-SEER minimum efficiency standard that went into effect Jan 22, 2006. When purchasing a 13-SEER or higher outdoor unit, it should not be matched with an existing indoor unit that is not rated by the manufacturer to achieve a 13-SEER or higher system efficiency rating.

### If my current system is R-22, can I replace a portion of it with R-410A?

If you purchase an outdoor R-410A unit, you must replace the "indoor coil" with a properly matched R-410A model. R-22 and R-410A refrigerants cannot be mixed.

### Should I purchase an R-410A system if I need a solution NOW?

While you can continue to legally purchase R-22 systems until supplies run out sometime after 2010, if you need a solution today, it may make more sense in the long run to buy an R-410A system. Your Ruud Contractor can assist you with reviewing and understanding your best option.

Use our online Contractor Locator System at [www.RuudAC.com](http://www.RuudAC.com), to find a Qualified Ruud Contractor today!



## RUUD TOTAL HOME COMFORT SYSTEM

### Features:

- 1 RUUD OUTDOOR UNIT.** AC and Heat Pump models, with efficiencies ranging from 13 SEER and above. Your contractor can help determine the best system for your needs.
- 2 RUUD INDOOR UNIT.** Ruud produces the industry's most complete line of quality gas furnaces and air handlers to complete your home comfort system.
- 3 RUUD INDOOR COIL.** It works with the outdoor unit to keep homes comfortable at a low cost.
- 4 ELECTRONIC AIR CLEANER.** It collects dust and other particles to keep the air your family breathes cleaner and healthier.
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