Refrigerants Explained

by Frank Landwehr | Feb. 23, 2015

There are four different types of refrigerants that homeowners should be aware of when it comes to Air Conditioning and Heat Pump equipment. This tool will give a very brief description of each type of refrigerant, in hopes of giving homeowners a better understanding of each and the role refrigerants play in delivering maximum efficiency and comfort.

- **R-22**
  - Often referred to by a brand name, such as Freon
  - As of 2010, R-22 was discontinued for use in new A/C systems as part of Montreal Protocol
  - Contributes to ozone depletion if vented to the atmosphere
  - **Caution:** Chemical companies will no longer be allowed to manufacture R-22 to service existing systems starting 2022

- **R-410a**
  - Often referred to as Puron, Suva 9100, or Genetron AZ-20
  - Typically the replacement for R-22 and is approved for use in new systems
  - Operating pressure more than 50% greater than R-22, which leads to higher efficiency
  - New industry standard for U.S. residential air systems
  - Does not contribute to ozone depletion

- **R-407c**
  - Often referred to as Suva 407C or Genetron 407C
  - Does not contribute to ozone depletion
  - Most closely matches the operating characteristics of R-22

- **R-134a**
  - Widely used in many commercial air conditioning and refrigeration systems globally
  - Does not contribute to ozone depletion, also the first non-ozone-depleting fluorocarbon refrigerant to be commercialized
  - Featured in many large commercial screw chillers