

Recharging Air Conditioners

The U.S. Environmental Protection Agency (EPA) is cautioning homeowners, manufacturers of propane-based refrigerants, home improvement contractors and air conditioning technicians of the safety hazards related to the use of propane in existing motor vehicle and home air conditioning systems. Using a propane-based refrigerant in an air conditioner that is not designed to use propane or flammable refrigerants poses a threat to homeowners as well as service technicians, because systems that are recharged with an unapproved alternative called “22a” can catch fire or explode, resulting in injury and property damage. EPA continues to investigate instances where propane-based refrigerants have been illegally marketed and used as substitutes for HCFC-22 (R-22) and will continue to take enforcement actions where appropriate.

“Using an unapproved, flammable refrigerant in a system that wasn’t designed to address flammability can lead to serious consequences, including explosion or injury in the worst cases,” said Janet McCabe, acting assistant administrator for EPA’s Office of Air and Radiation. “As the summer cooling season gets started, we want to make sure consumers and equipment owners know what is going into their system is safe.”

A number of refrigerants with “22a” or “R-22a” in the name contain highly flammable hydrocarbons, such as propane, and are being marketed to consumers and contractors seeking to recharge existing home and motor vehicle air conditioning systems that were not designed to use propane or other flammable refrigerants. As a result, EPA recently proposed that 22a and other highly flammable refrigerants are unacceptable for use in existing central air-conditioning systems because they pose significantly more risk to public health or the environment than acceptable substitutes. Under the authority of the Clean Air Act, EPA’s Significant New Alternatives Policy (SNAP) Program evaluates chemicals and technologies on an ongoing basis within a comparative risk framework. Over the last two decades, SNAP has evaluated more than 400 substitutes for some of the most harmful chemicals used across the economy.

EPA encourages technicians and contractors to consult our website for more information and recommends homeowners confirm that air conditioning service providers follow manufacturers’ recommendations. Homeowners should be aware that recharging their cooling systems with the wrong refrigerant can void manufacturers’ warranties.

EPA will continue to take enforcement actions to protect the public from the unapproved marketing and selling of these refrigerants.

Recent enforcement actions include:

March 17, 2016: A Louisiana man was arrested for selling a product called Super-Freeze 22A, a substitute air-conditioning refrigerant composed primarily of propane, to air-conditioning repair technicians and equipment owners. According to reports, few of the

individuals who purchased the product were aware it was potentially flammable.

January 29, 2016: In a settlement with EPA, Northcutt, Inc., of Wichita, Kan., agreed to discontinue domestic marketing and sales of unapproved flammable hydrocarbon refrigerants as substitutes for an ozone-depleting substitute, send a warning letter to past domestic purchasers of the substitutes, and pay a \$100,000 civil penalty. Northcutt allegedly violated Clean Air Act requirements through the marketing and sale of two flammable hydrocarbon refrigerant products, ES 22a and ES 502a, as substitutes for ozone-depleting substances without providing the requisite information to EPA for review and approval.

May 15, 2015: In a settlement with EPA, Enviro-Safe Refrigerants, Inc., of Pekin, Ill., agreed to pay a \$300,000 civil penalty and cease marketing and sale of unapproved flammable hydrocarbon refrigerants as substitutes for ozone-depleting substances. Enviro-Safe allegedly violated Clean Air Act requirements through the marketing and sale of three flammable hydrocarbon refrigerant products, HC-12a, HC-22a and HC-502a, as substitutes for ozone-depleting substances without providing the requisite information to EPA for review and approval.

More information about R-22a and alternatives for air conditioning: <https://www.epa.gov/snap/questions-and-answers-about-r-22a-safety>

More information on the most recent SNAP rules: <https://www.epa.gov/snap/snap-regulations>