

During summer, we use our air conditioners to cool our homes on a daily basis. They provide comfort and better quality of life. An air conditioner depends on refrigerant (also known as coolant or Freon) to perform all these functions. R22 (also known as HCFC-22) is a chlorofluorocarbon (CFC) once widely used as a refrigerant. If your home or office AC is over 10 years old, it's probably using R22 freon. However, R22 Freon is banned in the U.S. today. If your AC system uses R22 refrigerant, you might be worried about how this may affect you. Read on.

And if you need professional consultation to replace your R-22 air conditioner, SuperTech is here to help!

## **What Is R22 Freon?**

R22, a common form of the HCFC-22 chemical, is a refrigerant used for cooling air in air conditioning systems. A refrigerant is a substance used in a heat cycle that undergoes a phase change between gas and liquid to allow the cooling in an AC. R22 is just one of the many refrigerant choices available out there. Without a refrigerant, an AC won't be able to cool your home. A refrigerant may also be responsible for heating air if you have a heat pump system. R22 refrigerant has been an important component of air conditioners in homes and offices for years. But as of 2020, it's prohibited in the U.S..

## **Why Did The U.S Ban R22 Refrigerant?**

The U.S. Environmental Protection Agency (EPA) has [banned R22 freon](#) in the country. Why? R22 contributes to the depletion of the ozone layer – which absorbs the ultraviolet radiation from the sun and protects us from its harmful effects – and the ecosystem in

general. R22 leaks are highly toxic and can damage the environment, specifically through causing ozone depletion.



In 2010, the U.S. stopped the sale of new air conditioning units that use R22. That means new air conditioners in US manufactured after 2010 are prohibited from using R22 coolant.

R22 phaseout in 2020 means that it's completely illegal to manufacture or import R22 into the country. Recovered, recycled, or reclaimed R22 can still service existing HVAC systems, but chemical manufacturers can't produce new R22 refrigerants to service existing air conditioners and heat pumps.

## **What Does It Mean If Your AC Unit Is Using R22 Freon?**

You as your system's owner are not forced to replace your R22 AC unit now. But you may need the R22 refrigerant for your air conditioning system one day. And the fact remains that old R22 stocks will be sold out and won't be replenished. This will force prices up and make it difficult for HVAC technicians to find any.

# How Do I Know Whether My AC Uses R22 Freon?

Is your air conditioning unit more than 10 years old? If so, it may be using R22. Even if it's newer, there's no need to make an assumption. Here are three simple things you can do to check the type of refrigerant your existing equipment is running on:

**Check the owner's manual:** Find the operation manual of your older system and check it. If you see HCFC-22 written on it, then your older air conditioner uses R22.

**Look for the equipment nameplate:** Check the indoor coil or outdoor condenser of your HVAC system for a nameplate on the case that shows all the specs of your system as well as the installed refrigerant.



Indoor Coil Name Plate



SERIAL E073918762

PROD N2A324AKA200

MODEL N2A324AKA200

METERING TXV N/A

DEVICE INDOOR OUTDOOR

FACTORY CHARGED R-22

4.65 LBS

INDOOR TXV SUB COOLING 13 °F

POWER SUPPLY 208-230 VOLTS AC

1 PH 60 HZ

PERMISSIBLE VOLTAGE AT UNIT

253 MAX 197 MIN

SUITABLE FOR OUTDOOR USE

COMPRESSOR 208/230 VOLTS AC

1 PH 60 HZ

10.4 FLA 54.0 LRA

FAN MOTOR 208/230 VOLTS AC

1 PH 60 HZ

1/10 HP .75 FLA

DESIGN/TEST PRESSURE GAGE

HI 300 PSI 2068 KPA

LO 150 PSI 1034 KPA

MAX DESIGN/WORKING PRESSURE

700 PSIG 4826 KPA

MINIMUM CIRCUIT AMPS 13.8

MAX FUSE 20 A

MAX CRY-BREAK 20 A

MAX TYPE RECOMMENDED

MODEL NUMBER N2A324AKA200

SERIAL NUMBER E073918762

UL US

ARI PERFORMANCE CERTIFIED

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PERFORMANCE CERTIFIED

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AC Condenser Name Plate

**Call a professional:** When in doubt about the type of refrigerant your AC runs on and how the R22 ban can affect you, call [SuperTech](#) for help. We have experienced, EPA-certified technicians to give you the needed help and support.

## Is R22 Freon Still Available?

Yes, recovered or recycled R22 is still available to purchase. However, the cost is getting higher and higher as the supply is diminishing. Again, if the tank or tubing for the condensate pump cracks because of long-term usage, the water will escape and drip or pool around your AC unit.

## How Often Does My R22 Air Conditioner Need Its Freon Refilled?

An air conditioner is a closed loop. Refrigerant cycles through this closed loop system. So, no new refrigerant is needed unless there's a refrigerant leak. This is because it isn't gas that can be used up like in a car. However, possible signs that your HVAC system could be low on refrigerant include the following:

- Your [AC doesn't cool your home or office](#) when running.
- You're incurring high energy bills.
- [The air from the vents isn't cold.](#)
- [There's ice on the refrigerant lines.](#)
- [Frozen heat pump condenser](#)
- Your HVAC unit is making a hissing or bubbling noise when it's on.

To diagnose whether it's indeed low on refrigerant, you need a HVAC technician to measure superheat and subcool with gauges. That requires special equipment and technical knowledge. During a professional [AC tune-up](#), HVAC technicians test your system's refrigerant levels and determine if more refrigerant is required. This is why it is vital to get an AC tune up before summer so that you have cool air all season.

Furthermore, to learn more about what to do if your system is leaking refrigerant, check out our [freon leak](#) blog.



# What Can You Replace R22 With?

For residential HVAC system, R410A is the R22 replacement.

## What's The Difference In R22 And R-410A?

R22 is a greenhouse gas. It affects the ozone layer when it goes into the atmosphere, probably due to leakages. R-410A has been selected as the replacement refrigerant of R22 in residential cooling systems. It has the following benefits over the older R22:

- R-410A is more competent because it can absorb and release heat efficiently.
- It doesn't damage the environment.
- It's good for all new air conditioners.
- It doesn't destroy the ozone layer.
- It's cheaper.

## Now, What Are My Options If I Have R22 Freon In My Old AC?

If you have an R22 air conditioner that is leaking Freon, there are two choices to make:

- [Buy a new AC.](#)
- [Repair](#) the leak and add R22.

Depending on where the leak is, fixing your older unit could be very costly. Again, R22 has become very expensive due to the freon ban. There could also be multiple leaks in your R22 system. New units could achieve higher energy efficiency and be eligible for [federal tax credit](#). But of course, you're free to choose from any of these two alternatives. So, it makes sense to get professional help in a situation like this. Contact SuperTech, the [best AC company in Baltimore](#), or [schedule online](#) today for a solution.