

About Fluorocarbon-Free Refrigerators • • •

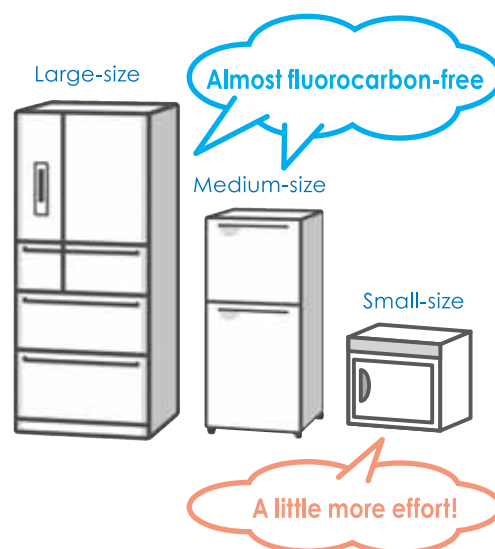
What is a fluorocarbon-free refrigerator?



Refrigerators and freezers are indispensable in everyday life for conserving fresh food.

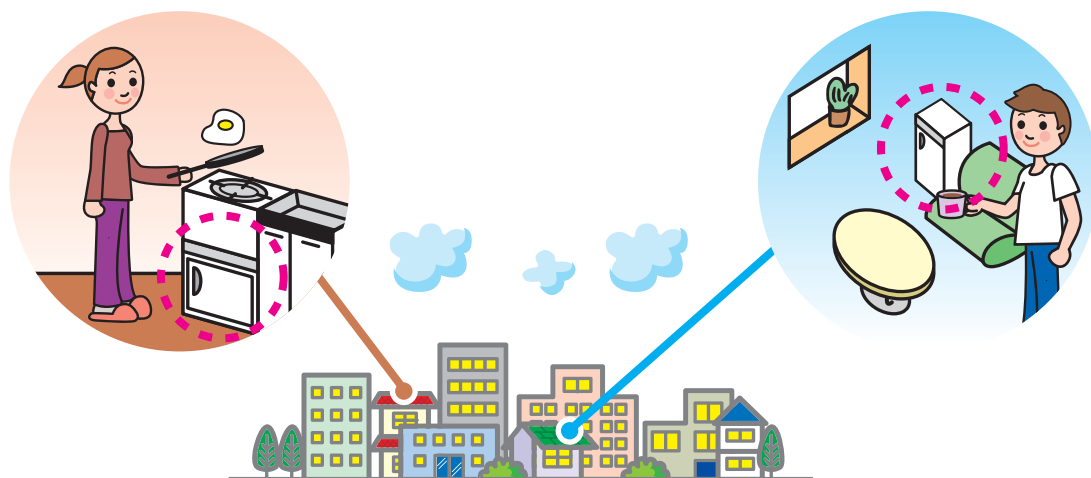
Chlorofluorocarbons (CFC), which are a variety of fluorocarbons, have traditionally been used as refrigerants to release heat from inside domestic refrigerators. When CFC production was restricted in order to protect the Earth's ozone layer, hydro-fluorocarbons (HFC) were replaced with CFC as refrigerants.

However, HFC is a substance that has an effect on climate change one thousand times as strong as carbon-dioxide. For example, a large-sized domestic refrigerator contains about 150g of HFC134a. When this is released into the atmosphere, the impact on climate change is the same as the emission of 0.2t of carbon-dioxide (the equivalent of 20,000 soccer balls in volume). Since HFC is included in the list of restricted greenhouse gases under the Kyoto Protocol, its use must be reduced as much as possible, and research and development into new refrigerants has been undertaken. Refrigerators using isobutane, a hydrocarbon-type refrigerant, have already been put to practical use. At present, fluorocarbon-free refrigerators using isobutane as refrigerant are most commonly used for large- and medium-sizes.



Practical use of fluorocarbon-free refrigerators

On the other hand, in terms of small-sized refrigerators used mostly by students or unmarried people living on their own, products using either isobutane or HFC are both marketed. It is hoped that these small-sized refrigerators will also become fluorocarbon-free.



Small-sized refrigerators for which fluorocarbon-free is desirable
(Models used mostly by students and unmarried people living on their own)