

keep your  
appliances  
healthy



## Your home refrigerator

Refrigerators for home use are sealed units, so they shouldn't leak during use. But you need to look after your fridge. This will keep your energy costs down and keep your food stored at the correct temperature.

So to save money, protect the environment and stay healthy!

- Follow the manufacturer's instructions. For example, don't scrape the freezer compartment with a sharp knife. If you do make a hole in the lining, the refrigerant may escape.
- Check that your fridge is keeping food at the right temperature (see the user manual or Health Department recommendations.)
- If you don't think your refrigerator is working well, have it serviced by a qualified technician.
- Have the seals replaced if they are damaged or loose.
- When a refrigerator reaches the end of its life, make sure that it is taken away to a place where someone will collect and bottle up the refrigerant. (See our contacts list on the back cover.)



Ministry for the  
**Environment**  
*Manatū Mō Te Taiao*

## Contacts:

For the names of people who are qualified to work on equipment containing refrigerants, contact the following professional bodies. Check that all service people use the Code of Practice for their industry group.

### Motor Trades Association (MTA)

(ph: 385 8859) or  
email: [com.tech@motor\\_trade.co.nz](mailto:com.tech@motor_trade.co.nz).

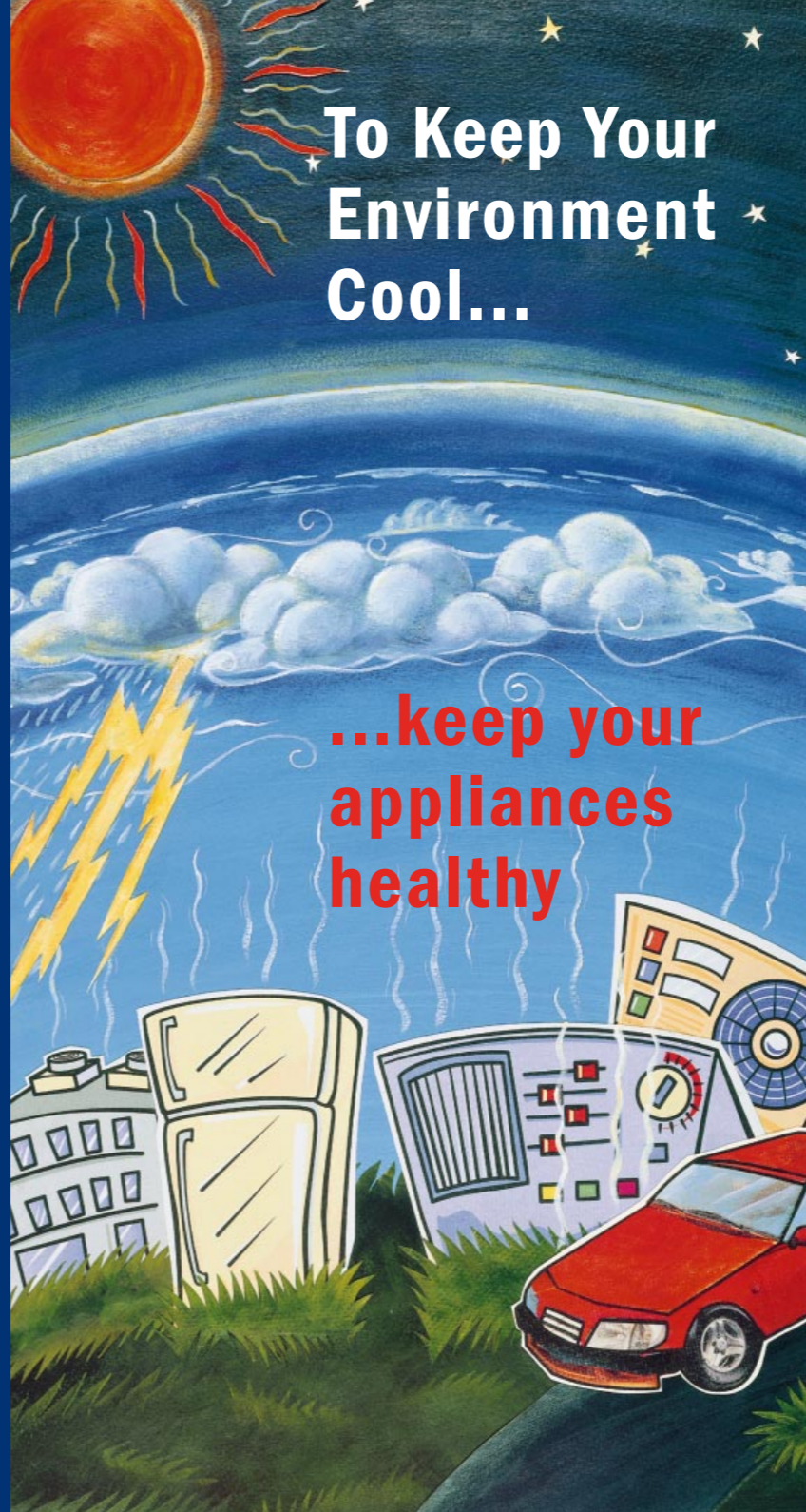
### Institute of Refrigeration, Heating and Air Conditioning Engineers (IRHACE)

ph: 09 262 1405 fax: 09 262 1406  
email: [admin@irhace.org.nz](mailto:admin@irhace.org.nz)  
website: [www.ihrace.org.nz](http://www.ihrace.org.nz)

### Vehicle Air Conditioning Specialists (VASA)

Website: [www.vasa.org.au](http://www.vasa.org.au) and click on 'members list' to find contact details.

For more information on ozone layer protection and global warming, and things you can do to protect the environment, visit [www.mfe.govt.nz](http://www.mfe.govt.nz).



To Keep Your  
Environment  
Cool...

...keep your  
appliances  
healthy

To keep your  
environment  
cool



## The inside story on refrigerants

Refrigerants are the gases that keep fridges cold. You will also find them in air conditioning systems, cold stores, dehumidifiers and heat pumps.

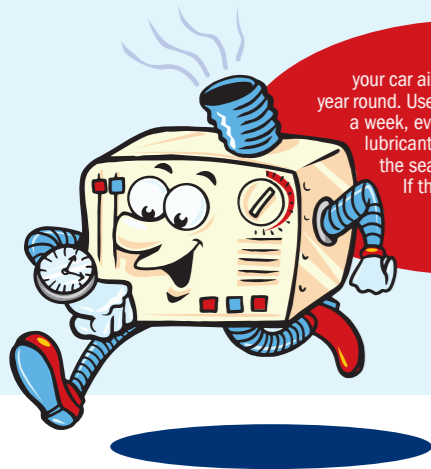
They're great for us, but not so great for the environment.

Some common refrigerants damage the ozone layer, so more of the sun's ultra violet rays get through. This gives us more skin cancer and it damages a lot of plant and marine life.

Some refrigerants are "global warming" gases. They heat up the lower atmosphere.

Some do both!

Refrigerants can only harm the environment if they escape. If you keep them contained, they are not a problem. This pamphlet explains what you can do to keep refrigerants under wraps.



Use your car air conditioning unit all year round. Use it for at least ten minutes a week, every week. This circulates the lubricants and refrigerants, preventing the seals and joints from drying out. If they dry out, they crack and let the refrigerants escape.

### Cars and other vehicles

Use your car air conditioning unit all year round. Use it for at least ten minutes a week, every week. This circulates the lubricants and refrigerants, preventing the seals and joints from drying out. If they dry out, they crack and let the refrigerants escape.

Have your car air conditioning units checked and serviced regularly by qualified service staff. Have the servicing done in the winter.

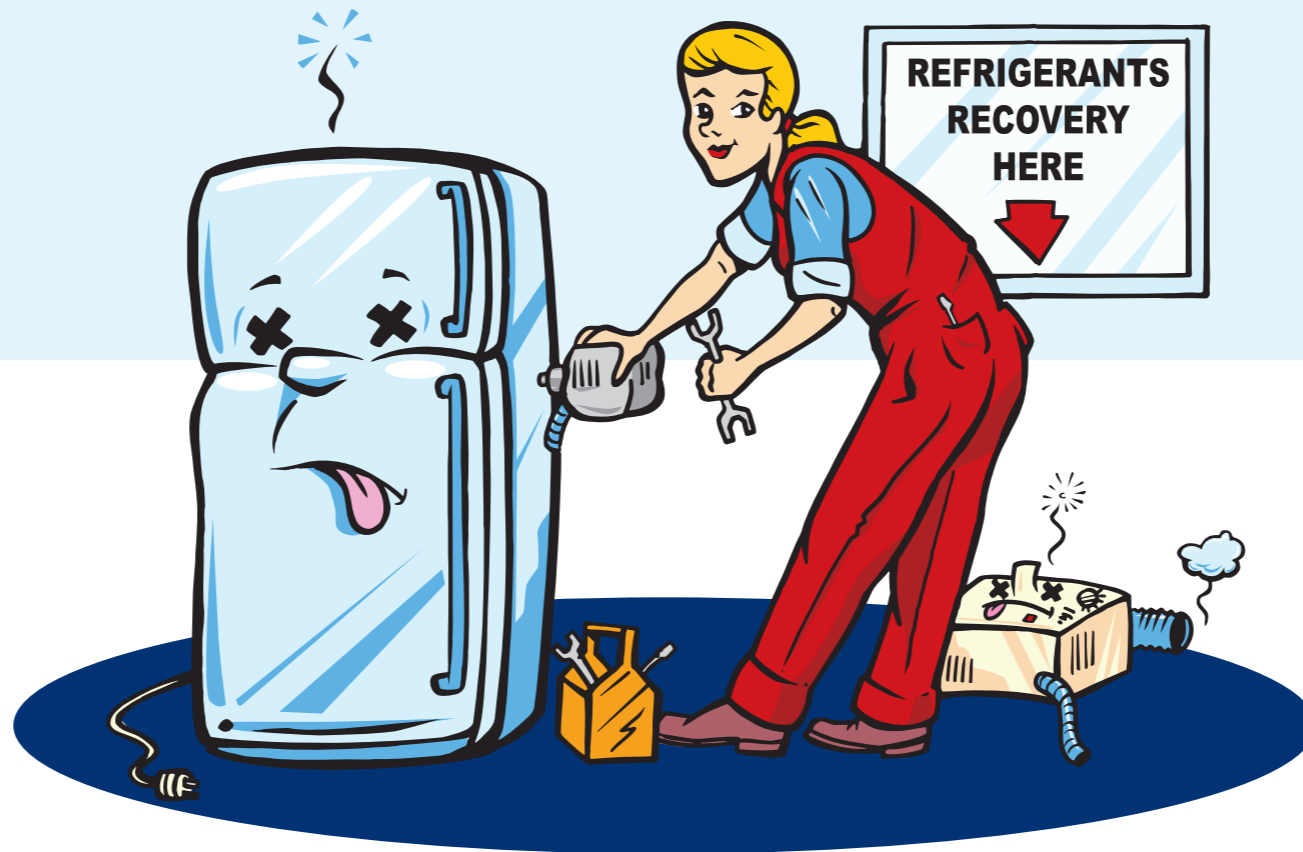
If you don't want to use your air conditioning system, have it removed by someone who will collect the refrigerant.

When your system, or your car, reaches the end of its life, make sure that it goes to a dismantler or car wrecker who will have the gas recovered.

### Offices, supermarkets and cool stores

Office air conditioning systems, supermarket chillers and cool stores use more refrigerant than home appliances, so it is even more important that they are well designed and maintained.

Get advice from qualified engineers on maintenance schedules, and make sure that all service people use the IRHACE Code of Practice.



### Small air conditioning units, dehumidifiers and heat pumps around the home

Small air conditioning units and heat pumps can lose their refrigerants if not well installed. Make sure all units are installed by someone with proper training. Ask to see their qualifications.

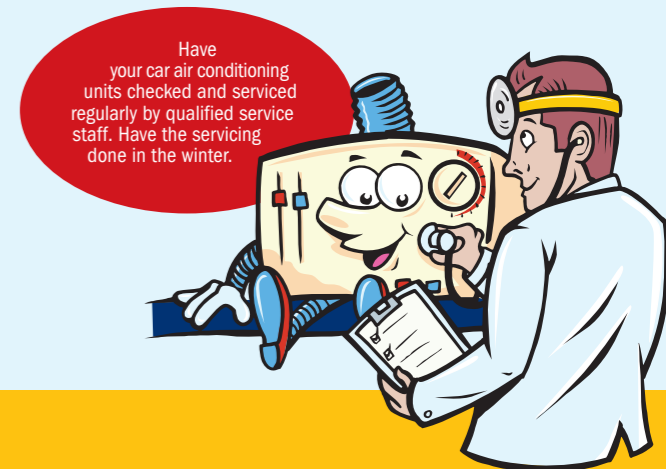
Read and follow manufacturers' instructions for use, storage and maintenance.

Make sure that refrigerants are recovered from equipment when it reaches the end of its life.

### Getting service

The motor trades and refrigeration industries have set up special training programmes and developed Codes of Practice. These cover good practice during installation, servicing, and recovering refrigerant from products at the end of their lives.

Industry groups also run a special levy programme to pay for the transport and safe destruction of refrigerant that cannot be recycled.



### More on fluorocarbon refrigerants

#### Chlorofluorocarbons (CFCs),

CFCs were once widely used. They have not been imported into New Zealand for use as refrigerants since 1996. There are still CFCs left in New Zealand in some (older) car air conditioning systems and domestic refrigerators, as well as in industrial air conditioning and refrigeration systems. CFCs harm the ozone layer and they are also strong greenhouse gases.

#### Hydrochlorofluorocarbons (HCFCs)

Hydrochlorofluorocarbons do less damage to the ozone layer than CFCs, and their global warming impact is not as strong. They are being used while other longer term replacements to CFCs are developed. New Zealand can go on importing HCFCs until 2015.

#### Hydrofluorocarbons (HFCs)

HFCs are less efficient than CFCs. They do not harm the ozone layer but they are highly potent greenhouse gases (from 140 to 12,000 times more warming than CO<sub>2</sub>). Under the Kyoto Protocol we are committed to stabilising our total greenhouse gas emissions at 1990 levels.

#### Alternative refrigerants

Alternatives such as ammonia are used in some industrial situations, including fishing boats.