

# Fridge Recycling

Approximately 3 million household fridges and half a million commercial fridges are disposed of in the UK each year.

Both the coolant and the insulation foam in fridges can contain Ozone Depleting Substances (ODS) which means that their disposal and recycling has to be carried out under strict conditions in order not to release these into the atmosphere. While Ozone is poisonous to humans, in the top layers of the atmosphere it is necessary as a vital protection against harmful UV radiation from the sun.

New fridges should not contain ODS, however, older fridges which are reaching the end of lifespan and need to be recycled now or within the next few years will still contain them.

Fridges from domestic premises can generally be taken to Household Waste Recycling Centres, from where they will be collected by a licensed company. Councils will often provide a bulky items collection services if you are unable to take your fridge to one of these centres yourself, although they may charge.

Contact your local authority for further details.

## How are Fridges Recycled?

1. Special pliers are used to puncture the cooling circuit and extract the liquid coolant, a mixture of oils and ODS.
2. The compressor and cooling circuit are removed manually at this stage, as well as internal items such as trays, grates, door seals, mercury switches, plugs and cables.
3. The fridge is now ready for shredding in a sealed chamber. Nitrogen is injected into the shredder to prevent possible explosions caused by high dust concentrations.
4. After shredding, the ODS rich nitrogen is collected and the ODS is condensed and contained.
5. The shredded materials are then separated by properties, such as weight, magnetic properties.
6. Recovered ODS are incinerated at high temperatures to destroy the chlorine and prevent further environmental damage.

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