

# SPOTLIGHT ON REFRIGERANTS

## THE PROBLEM WITH REFRIGERANTS

Found in fridges, air conditioners and heat pumps, some refrigerants have a significant impact on our climate, and are responsible for both ozone layer depletion in the past and today's climate crisis.

To address ozone layer depletion, a range of fluorinated gases (or F-gases) were proposed by legislators as substitutes for ozone-depleting substances in a wide range of appliances. However, even if harmless for the ozone layer, F-gases still have a big impact on the climate, with a greenhouse effect potential up to 23 000 times higher than CO<sub>2</sub>.

Since 2014, the renewed EU F-Gas Regulation has been imposing a required reduction of F-gas emissions (two-thirds by 2030), in favour of more climate-friendly solutions such as natural refrigerants, CO<sub>2</sub>, air or water. In 2016, a similar goal was set at the international level with the Kigali Amendment to the Montreal Protocol.

The F-gas phase-down is proving to be difficult though: the use of climate-friendly natural refrigerants is drastically limited by current safety standards developed by international and European Standard Organisations (EN 378, ISO 5149, IEC 60335-2 series). Based on outdated and unrealistic assumptions on the risks of natural refrigerants, these standards set unjustified limits on their use.



### Cooling the global warming

By 2050, two thirds of the world's households could have an air conditioner due to the effects of global warming. The total number of air conditioners is expected to grow from 1.6 to 5.6 billion globally [International Energy Agency, 2018]. The need to switch to climate-friendly refrigerants has never been so great.

### ECOS WORKS TO...

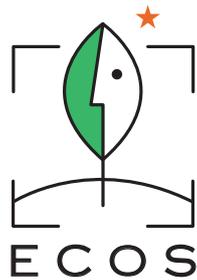
- Update and strengthen safety standards which can secure conditions for the widespread uptake of climate-friendly alternatives to fluorinated gases, while keeping the same level of safety
- Make sure that the hard-won political achievements at European and international levels are supported - and not blocked - by standardisation
- Ensure, with the support of our national members, a swift implementation of the EU F-Gas Regulation and the Kigali Amendment to the Montreal Protocol

### IN AN IDEAL WORLD...

Political achievements at international and EU level should be supported by standards, not hindered by them. International safety standards should be based on scientific realities, and not serve the interests of a limited number of chemical companies.

Alternative climate-friendly refrigerants can and should be used in place of all F-gases, bringing substantial improvements in the climate performance of heating and cooling systems. This, in turn, would greatly contribute to the mitigation of climate change, one of the main points on ECOS agenda.





## ECOS is the only environmental organisation worldwide specialised in standardisation.

We are an international network of members sharing a vision of a clean and healthy environment where people live in respect of the planet and its natural resources, preserving them for future generations. ECOS aims to influence the development of ambitious standardisation, legislation and political strategies to promote the transition to a clean and circular economy that respects planetary boundaries.

ECOS promotes and defends environmental interests in the development of standards at European and international level, as well as in the development of technical environmental product policies. Thanks to nearly 20 years of experience and a strong network of members and experts, our role in these processes is highly valued and widely recognised.

### The green line to standards



### Where to find us?

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