Fluorinated Gases

From solution to problem

Fluorinated gases started to be used in the early 1990s as substitutes for other substances that attack the ozone layer more violently and were banned by the Montreal Protocol, mainly to eliminate those compounds that contained chlorine. The use of fluorinated gases has many advantages provided they are managed responsibly, nevertheless their misuse can actually be catastrophic for the environment.

- 90% of the fluorinated gases from refrigeration and air-conditioned equipment are released into the atmosphere due to lack of treatment
- They can remain in the atmosphere for up to 50,000 years
- There are no technologies for their selective recycling
- The global energy demand for refrigeration equipment is expected to triple by 2050 due to global warming
- If we don't do something to change it, uncontrolled use of HFCs will account for 12% of GHG emissions by 2050



SF6

What can we do?

Recommendations to mitigate its environmental impact





- Reuse responsibly and recycle carefully
 Control the state of your installations to
- prevent any leaksDon't buy F-gases on the illegal market
- Require your technician to be trained and certified

If you are a public administration



- Promote the recovery, recycling and destruction of HFCs
- Improve the regulatory framework and ensure compliance with applicable legislation
- Encourage transition to alternative solutions
- Inform and raise social awareness

If you are an industry or a waste manager

carried out

- TYP
 - areas
 Remember that appliances that are not hermetically sealed will only be sold to the end user when proof is provided that the installation will be carried out by a certified company

Sign up for the HFC registrySubmit an annual report on imports

 If you carry fluorinated gas, always check that your authorization is in order

Always label clearly, legibly and indeliblyMake sure to store safely in designated

Solution To solve waste management

Interreg Sudoe KET4F-Gas

We have developed the KET4F-Gas System with two very easy to apply prototypes in a waste management facility. With a relatively low implementation cost, it represents a great potential benefit from an environmental point of view.

> This system allows the efficient recovery of value added HFCs (such as R-32) from high GWP refrigerant mixtures (R-410A) present in end-of-life equipment and refrigerants, in order to reuse them as many times as needed in new low GWP and environmentally friendly refrigerant mixtures.

Check out our online tool to classify waste according to the European method and identify the best treatment solutions based on existing Key Enabling Technologies (KETs)

HFC

PFC

KET4F-Gas

The great European alliance of research and innovation for the reduction of the environmental impact of fluorinated gases through key enabling technologies.

A consortium of 13 partners and 6 associates from Portugal, Spain, France and the United Arab Emirates devoted to applied research and eco-innovation to protect the planet through technological innovation and its transfer to SMEs in south-western Europe.



If you are an industry or a waste manager

You can find more information in our Manual of Good Practices for Industry and Waste Managers.



If you are a public administration

You can find more information in our Roadmap for the public administration responsible for waste management.

PARTNERS



SOE2/P1/P0823 The project budget: 1,742,800€ FEDER co-financing of 1,307,100€



www.KET4F-Gas.eu

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Reducing the Environmental Impact of **Fluorinated Gases in** the Sudoe area through Key Enabling **Technologies**