

## EXPERT KNOWLEDGE

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### Refrigerants – a particularly valuable asset!

- **What is meant by recovery, recycling, reclamation and destruction of refrigerants?**

The quotas set down in the F-Gas Regulation have driven up the prices for many refrigerants, and some are now simply no longer available on the market. In most cases, refrigeration equipment has a very long service life and requires regular servicing. The refrigerant contained in the equipment system is a particularly valuable asset.

#### What does the F-Gas Regulation say about making use of these refrigerants?

The Regulation addresses, and challenges, plant manufacturers, refrigeration and air-conditioning businesses, and the foremen, technicians and refrigeration mechatronics engineers in these businesses. The [Chillventa Congress](#) and the three [Chillventa Forums](#) offer a wealth of information on the subject of refrigerants. The presentations and a summary of their contents are provided on the website. Reserve your [ticket](#) for the Congress today.

Refrigerants are stored in the refrigeration equipment that the businesses look after. If the equipment is constructed correctly and regularly serviced, the refrigerants will not be “consumed”.

#### What needs to be done? What is permitted under the F-Gas Regulation?

An understanding of the F-Gas Regulation is essential to the use of the refrigerants in existing equipment. A key element here is the definition of terms in Article 2 of the Regulation. It is not enough to assign meaning to these terms based on technical knowledge, because in some cases, the authors of the Regulation have created their own definitions, which do not always coincide with those of the previous version from 2006. In this connection, here is a selection of the terms from Article 2, Definitions:

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*(10) 'placing on the market' means supplying or making available to another party in the Union for the first time, for payment or free of charge, or using for its own account in the case of a producer, and includes customs release for free circulation in the Union;*

*"Placing on the market"* relates principally to the manufacturers of refrigerants and importers that import refrigerants into the EU, or manufacture them in the EU and sell them to third parties. This term is used in Articles 1, 2, 11, 14, 16, 17, 18, 19, 21 and 25, and Annexes III and V.

*(14) 'recovery' means the collection and storage of fluorinated greenhouse gases from products, including containers, and equipment during maintenance or servicing or prior to the disposal of the products or equipment;*

*"Recovery"* is the key term with regard to the use of refrigerants in existing equipment. This term is used in Articles 1, 2, 6, 8, 9, 10, 12 and 13, and is explained in Article 8.

#### *Article 8: Recovery*

*1. Operators of stationary equipment or of refrigeration units of refrigerated trucks and trailers that contain fluorinated greenhouse gases not contained in foams shall ensure that the recovery of those gases is carried out by natural persons that hold the relevant certificates provided for by Article 10, so that those gases are recycled, reclaimed or destroyed.*

*This obligation applies to operators of any of the following equipment:*

*(a) the cooling circuits of stationary refrigeration, stationary air-conditioning and stationary heat pump equipment; ...*

**This Article places full responsibility on the equipment operators to ensure that the recovery of refrigerants from equipment is performed only by certified persons.**

#### *From Article 2: Definitions*

*(15) 'recycling' means the reuse of a recovered fluorinated greenhouse gas following a basic cleaning process;*

*"Recycling"* is another key term. This provides the opportunity of re-using refrigerants from existing equipment following a basic cleaning process (i.e. the use of a filter dryer). This term is used in Articles 2, 6, 9, 11, 12 and 13, and in Annex VII.

It is important to note Article 13, which also permits the use of such refrigerants with a GWP of 2,500 or more for maintenance and servicing purposes until 1 January 2030.

*Article 13 Control of use*

*The prohibition referred to in the first subparagraph shall not apply to the following categories of fluorinated greenhouse gases until 1 January 2030:*

*(a) reclaimed fluorinated greenhouse gases with a global warming potential of 2,500 or more used for the maintenance or servicing of existing refrigeration equipment, provided that they have been labelled in accordance with Article 12(6);*

*(b) recycled fluorinated greenhouse gases with a global warming potential of 2,500 or more used for the maintenance or servicing of existing refrigeration equipment provided they have been recovered from such equipment. Such recycled gases may only be used by the undertaking which carried out their recovery as part of maintenance or servicing or the undertaking for which the recovery was carried out as part of maintenance or servicing.*

*From Article 2: Definitions:*

*(16) ‘reclamation’ means the reprocessing of a recovered fluorinated greenhouse gas in order to match the equivalent performance of a virgin substance, taking into account its intended use;*

**“Reclamation” is the business of professional gas traders and refrigerant manufacturers.**

A look at the market will show that product manufacturers now also perceive the need for professional recovery and reclamation as a key component of the work they perform with their customers, and are actively implementing these processes. See also Art. 9. The term “reclamation” is used in Articles 2, 6, 9 and 12, and in Annex VII.

*(17) ‘destruction’ means the process of permanently transforming or decomposing all or most of a fluorinated greenhouse gas into one or more stable substances that are not fluorinated greenhouse gases;*

“Destruction” can be performed by the refrigerant manufacturer itself only if it has the right equipment for the process.

**Priority should be given to the use of recycled or reclaimed refrigerants.**

F-gases are valuable, especially the quantities that perform their task in the existing equipment and are capable of being recycled either now or later. These are important for the service department, which can then maintain the equipment using refrigerants that are either no longer available or are available only at a high price.

**More expertise at Chillventa**

Chillventa offers a wealth of information on all aspects of [refrigerants \(in the forums\)](#). All major [refrigerant manufacturers](#) and [specialist wholesalers](#) are represented. Contacts in the form of national and European [associations](#) are available on-site at Chillventa. Experts are on hand at the forums to provide visitors with knowledge on the various topics in compact form.

Book your Chillventa [ticket](#) now to attend the exhibition and take part in the forums.

See [here](#) for information on the “Technical Bulletin on F-Gas Recycling in the Field”.

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For more information please visit: [www.chillventa.de/en](http://www.chillventa.de/en)

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