# **Chapter 3:** Manufacturers

Manufacturers are primarily affected by provisions on labelling, pre-charged equipment and placing on the market restrictions for new equipment. In order to maintain competitiveness, manufacturers should strive to diversify their product lines as soon as possible so as to position themselves to be players in the emerging European market for low-GWP technologies.

# I. Labelling

## A. Products and Equipment

Under the provisions of the EU F-Gas Regulation, manufacturers cannot place products and equipment on the market unless properly labelled. The sectors affected include refrigeration, air-conditioning, heat pumps, fire protection, aerosol dispensers, HFC containers, solvents, and organic rankine cycles.<sup>(78)</sup>

The label must be clearly legible and indelible, written in the language of the EU Member State concerned,<sup>(79)</sup> and be placed either adjacent to the service ports for charging or recovery or the part of the equipment containing the HFCs and blends.<sup>(80)</sup>

In addition to this, it must contain the following information:<sup>(81)</sup>

- reference that the product or equipment contains or relies upon HFCs for its functioning and, where applicable, that the HFCs are contained in hermetically sealed equipment;<sup>(82)</sup>
- accepted industry designation of the HFC in question or, if no such designation is available, the chemical name; and
- metric and CO<sub>2</sub>e quantity of HFC for which the equipment is designed as well as its GWP.

This information must also be included in instruction manuals.<sup>(83)</sup>

## **B.** Foams and Pre-Blended Polyols

Manufacturers are also forbidden from placing foams and pre-blended polyols on the European marketplace unless properly labelled.<sup>(84)</sup> The label must clearly identify the HFCs using the accepted industry designation or, if no such designation is available, the chemical name.<sup>(85)</sup> In the case of foam boards, this information must be stated clearly and indelibly on the boards themselves.<sup>(86)</sup>

#### C. Advertising

Manufacturers of products, equipment, foams and pre-blended polyols must ensure that the above information is also included in "descriptions used for advertising." This includes periodicals, billboards, websites and packaging.<sup>(87)</sup>

# II. Pre-Charged Equipment

Manufacturers that pre-charge their equipment with HFCs inside the European Union (hereinafter "EU manufacturers of pre-charged equipment") and manufacturers and importing companies that pre-charge their equipment outside the European Union (hereinafter "non-EU manufactures of pre-charged equipment") must meet three main obligations.

#### A. Reporting

From 2015 onwards, manufacturers importing pre-charged equipment must register with the electronic registry,<sup>(88)</sup> and manufacturers placing 500 CO<sub>2</sub>e tonnes or more of HFCs on the market during the previous calendar year must report their amounts placed on the market to the European Commission via the electronic registry.<sup>(89)</sup>

#### **ADVERTISING ON PACKAGING**

"Advertising" includes any text describing the qualities or functions of the product on its packaging.

The obligation to include this information in all types of advertising applies both to manufacturers and to retailers.

#### **B.** Accounting

From 2017 onwards, HFCs in pre-charged equipment must have an HFC quota. How this occurs depends on whether the equipment was pre-charged inside or outside the European Union.<sup>(90)</sup>

#### EU Manufacturers of Pre-Charged Equipment

EU manufacturers of pre-charged equipment will necessarily be using HFCs that have already been placed on the market. Thus there is a presumption that HFCs are already covered by an HFC quota and no further action is required.

#### Non-EU Manufacturers of Pre-Charged Equipment

Non-EU manufacturers of pre-charged equipment must ensure the HFCs in their imported pre-charged equipment are covered by an HFC quota, which can be done in one of three ways:

- 1. Via Export: Where a producer or importer places HFCs on the EU market and those HFCs are subsequently exported abroad to the non-EU manufacturer of pre-charged equipment.
- Via an Incumbent: Where a producer or importer which has been awarded an HFC quota as an incumbent authorises the non-EU manufacturer of pre-charged equipment to use its HFC quota.
- 3. Via a New Entrant: Where a producer or importer which has been awarded an HFC quota as a new entrant authorises the non-EU manufacturer of pre-charged equipment to use the HFC quota and subsequently supplies the corresponding quantities to the non-EU manufacturer.

#### C. Documenting Compliance

From 2018 onwards, both EU and non-EU manufacturers of pre-charged equipment must fully document compliance and draw up a declaration of conformity by 31 March each year demonstrating that the HFCs in pre-charged equipment placed on the market the previous calendar year were accounted for by an HFC quota.<sup>(91)</sup> The accuracy of the documentation and declaration of conformity must be verified by an independent auditor accredited pursuant to Directive 2003/87/EC or accredited to verify financial statements in accordance with the legislation of the EU Member State concerned.<sup>(92)</sup> All documentation and declarations of conformity must be kept for a period of at least five years.<sup>(93)</sup>

#### III. Placing on the Market Restrictions

The EU F-Gas Regulation prohibits certain HFC-based products and equipment from being placed on the market (i.e. they apply only to new equipment). These bans take various forms, with GWP thresholds of varying degrees, and should be understood as signposts in those sectors where it was determined technically and, more importantly, politically feasible to include them. Overall, there is a general sense of missed opportunity on the list of bans that were included in the EU F-Gas Regulation. While those that were included are important for setting those sectors on a pathway needed to achieve the HFC phase-down, many others were dropped for political reasons. Bans are indicators of where and when each sector needs to move, with some compelling the precise make-up of that sector from a certain date onward while others are designed to work in tandem with the HFC phase-down to mark the end point for moving that sector forward.

The EU F-Gas Regulation maintains the bans in the previous version (see Table 7) and introduces a number of new bans (see Table 8).

Table 7:Bans Carried Over FromPrevious Version of the EUF-Gas Regulation (2006)

Table 8:New Bans Introduced in theEU F-Gas Regulation (2014)

Products and Equipment	Date of Prohibition
Footwear that contains fluorinated greenhouse gases	4 July 2006
Non-refillable containers for fluorinated greenhouse gases used to service, maintain or fill refrigeration, air-conditioning or heat-pump equipment, fire protection systems or switchgear, or for use as solvents	
Non-confined direct evaporation systems that contain HFCs and perfluorocarbons (PFCs) as refrigerants	4 July 2007
Fire protection equipment that contain PFCs	
Windows for domestic use that contain fluorinated greenhouse gases	
Tyres that contain fluorinated greenhouse gases	
Other windows that contain fluorinated greenhouse gases	
One-component foams, except when required to meet national safety standards, that contain fluorinated greenhouse gases with GWP of 150 or more	4 July 2008
Aerosol generators marketed and intended for sale to the general public for entertainment and decorative purposes, as listed in point 40 of Annex XVII to Regulation (EC) No 1907/2006, and signal horns, that contain HFCs with GWP of 150 or more	4 July 2009

Products and Equipment	Date of Prohibition
Domestic refrigerators and freezers that contain HFCs with GWP of 150 or more	1 January 2015
Technical aerosols that contain HFCs with GWP of 150 or more, except when required to meet national safety standards or when used for medical applications	1 January 2018
Stationary refrigeration equipment that contain, or whose functioning relies upon, HFCs with GWP of 2500 or more except equipment intended for application designed to cool products to temperatures below - 50 °C	
Movable room air-conditioning equipment (hermetically sealed equipment which is movable between rooms by the end user) that contain HFCs with GWP of 150 or more	1 January 2020
Extruded polystyrene (XPS) foams that contain HFCs with GWP of 150 or more except when required to meet national safety standards	
Refrigerators and freezers for commercial use (hermetically sealed equipment) that contain HFCs with GWP of 2500 or more	
Refrigerators and freezers for commercial use (hermetically sealed equipment) that contain HFCs with GWP of 150 or more	
Multipack centralised refrigeration systems for commercial use with a rated capacity of 40 kW or more that contain, or whose functioning relies upon, fluorinated greenho gases with GWP of 150 or more, except in the primary refrigerant circuit of cascade systems where fluorinated greenhouse gases with a GWP of less than 1500 may be us	1 January 2022 use ed
Foams that contain HFCs with GWP of 150 or more except when required to meet national safety standards	1 January 2023
Single split air-conditioning systems containing less than 3 kg of fluorinated greenhouse gases that contain, or whose functioning relies upon, fluorinated greenhouse gases with GWP of 750 or more	1 January 2025

The prohibitions do not apply to equipment for which it has been established in Directive 2009/125/EC, also referred to as the "Ecodesign Directive," that lifecycle  $CO_2e$  emissions are lower due to energy efficiency than those from equivalent equipment not relying on HFCs.<sup>(94)</sup> To date, no such cases have been established.

National authorities should consider adopting additional bans at the national level in those sectors that can be converted wholly to low-GWP technologies. In its *Impact Assessment*, the European Commission provided a list of sectors where its consultants recommended including bans. In essence the majority of sectors could convert to low-GWP technologies in new equipment by 2020, and this should be the starting point for national authorities interested in protecting their manufacturers and consumers from undue reliance on HFC technologies.<sup>(95)</sup>