



CRC Industries Europe

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Announcement

CRC climate-friendly alternatives to HFCs

Regulation EU 517/2014 on fluorinated greenhouse gases in Technical Aerosols

Fluorinated greenhouse gases (F-gases) are a family of man-made gases used in a wide range of industrial applications, including technical aerosol products. The F-gases in use within Europe are HFC's (Hydrofluorocarbons). One of these frequently used HFC's is R134a, a refrigerant used for air-conditioning and cooling systems and also used as a propellant for non-flammable CRC Dust Removers, CRC Freezer Sprays and other high performance products, either typical safety applications.

These propellants do not damage the atmospheric ozone layer, so they are often used as substitutes for ozone-depleting substances. However, F-gases are powerful greenhouse gases, with a global warming effect up to 1430 times greater than carbon dioxide (CO₂), for R134a.

Therefore, the European Union is taking regulatory action to control F-gases as part of its policy to combat climate change.

The climate impacts of a substance is commonly expressed as the Global Warming Potential (GWP). The lower the GWP, the more climate-friendly.

This European regulation prohibits the marketing of products with a global warming potential of more than 150 times greater than carbon dioxide (CO₂).

Impact on supplier, distributor and user

Effective 1st January 2018, the European aerosol industry as a whole will not be able to manufacture, or place on the market any technical aerosol product containing F-gases with a GWP that exceeds 150.

HFC-134a, with a GWP value of 1,430 is the primary constituent of most non-flammable dusters and freezers. With this ban, it will no longer be available for use in Dust Removers, Freezer Sprays and other high performance products.

Legislation does not impose a final date for marketing these products, provide they have been placed on the market prior to January 1st 2018

No "one size fits all" solution

To avoid use and emission of HFCs, a variety of climate-friendly, energy efficient, safe and proven alternatives are available today.

In fact, for most applications where HFCs are still used in the world, more climate friendly alternatives could potentially be used. However, due to different safety properties of the alternatives, there is no "one size fits all" solution.

The suitability of a certain alternative must be considered separately for each product category.

CRC is working hard to offer alternative technologies with high focus on safety and application. CRC will offer Dust Removers and Freezer Sprays in different variations:

Product Category	Alternatives / Variants	Global Warming Potential (GWP)	Flammability Limits
Dust Removers	CO ₂	1	Non-flammable ⁽¹⁾
Dust Removers Freezer Sprays	HFO-1234ze	7	Non-flammable liquefied gas ⁽¹⁾⁽²⁾
Dust Removers	Propane/Butane	4	Flammable ⁽¹⁾

Overview table is only valid for Dust Removers and Freezer Sprays

(1)Directive 487/2013/EC; (2)According ASTM E681-04 @ 21°C

In the coming months all affected CRC products will be reformulated, in line with the requirements of the EU Regulation 517/2014. It's the priority of CRC to deliver a valuable alternative at the beginning of January 2018.

Please contact your local sales representative regarding product replacement and suitability.