

# Statement on Regulation (EU) No 517/2014 on Fluorinated Greenhouse Gases



The objective of Regulation (EU) No 517/2014 is to protect the environment by reducing emissions of fluorinated greenhouse gases. The Regulation entered into force on 9 June 2014 and applies from 1 January 2015.

Three main regulatory approaches aim to reduce fluorinated greenhouse gas emissions:

1. Introduction of a gradual phase-down of the quantities of hydrofluorocarbons (HFCs) available on the market to one-fifth of current levels by 2030,
2. Prohibitions on use and placement on the market, insofar as technically feasible and more climate friendly alternatives are available,
3. Continuation and expansion of the scope of regulations concerning leak tests, certification, disposal and labelling.

In article 2 point 1 of the Regulation, 'fluorinated greenhouse gases' are defined as hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and other greenhouse gases that contain fluorine, listed in Annex I (of that Regulation), or mixtures containing any of those substances. 'GWP' or 'global warming potential' means the climatic warming potential of a greenhouse gas relative to that of carbon dioxide ('CO<sub>2</sub>'), calculated in terms of the 100-year warming potential of one kilogram of a greenhouse gas relative to one kilogram of CO<sub>2</sub>.

We confirm that the following products of Covestro Deutschland AG comply with applicable requirements of Regulation (EU) No 517/2014 of 16 April 2014 (repealing Regulation (EC) No 842/2006) on fluorinated greenhouse gases and:

<b>ACCLAIM</b>	<b>BAYPREG</b>	<b>DESMOTHERM</b>
<b>APEC</b>	<b>BAYTEC</b>	<b>DISPERCOLL</b>
<b>ARCOL</b>	<b>BLENDUR</b>	<b>HYPERLITE</b>
<b>BAYBLEND *</b>	<b>CRELAN</b>	<b>IMPRAFIX</b>
<b>BAYBOND</b>	<b>DESAVIN</b>	<b>IMPRANIL</b>
<b>BAYCOLL</b>	<b>DESMOCAP</b>	<b>IMPRAPERM</b>
<b>BAYCUSAN</b>	<b>DESMOCOLL</b>	<b>MAKROBLEND</b>
<b>BAYFILL</b>	<b>DESMODERM</b>	<b>MAKROLON *</b>
<b>BAYGAL</b>	<b>DESMODUR</b>	<b>MULTITEC</b>
<b>BAYHYDROL</b>	<b>DESMOLAC</b>	<b>PERGUT</b>
<b>BAYHYDUR</b>	<b>DESMOMELT</b>	<b>ULTRACEL</b>
<b>BAYHYTHERM</b>	<b>DESMOPAN</b>	<b>URETEK</b>
<b>BAYMEDIX</b>	<b>DESMOPHEN</b>	<b>VULKOLLAN</b>
<b>BAYMIDUR</b>	<b>DESMORAPID</b>	
<b>BAYNAT</b>	<b>DESMOSEAL</b>	

\* Note: This confirmation only applies to granulated products

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To the best of our knowledge the above-mentioned products do not intentionally contain the following Fluorinated Greenhouse Gases (as defined in point 1 of article 2 and listed in Annex I of Regulation (EU) No 517/2014) and therefore these substances are not expected to be present above limit values, if applicable. The presence of analytically detectable traces, which have possibly been introduced via raw materials, auxiliaries and additives, cannot be excluded. Specific analyses to measure such traces have not been performed on raw materials or final products.:

## Annex I, Section 1: Hydrofluorocarbons (HFCs)

HFC-23	trifluoromethane (fluoroform)	CHF <sub>3</sub>
HFC-32	difluoromethane	CH <sub>2</sub> F <sub>2</sub>
HFC-41	fluoromethane (methyl fluoride)	CH <sub>3</sub> F
HFC-125	pentafluoroethane	CHF <sub>2</sub> CF <sub>3</sub>
HFC-134	1,1,2,2-tetrafluoroethane	CHF <sub>2</sub> CHF <sub>2</sub>
HFC-134a	1,1,1,2-tetrafluoroethane	CH <sub>2</sub> FCF <sub>3</sub>
HFC-143	1,1,2-trifluoroethane	CH <sub>2</sub> FCHF <sub>2</sub>
HFC-143a	1,1,1-trifluoroethane	CH <sub>3</sub> CF <sub>3</sub>
HFC-152	1,2-difluoroethane	CH <sub>2</sub> FCH <sub>2</sub> F
HFC-152a	1,1-difluoroethane	CH <sub>3</sub> CHF <sub>2</sub>
HFC-161	fluoroethane (ethyl fluoride)	H <sub>3</sub> CH <sub>2</sub> F
HFC-227ea	1,1,1,2,3,3,3-heptafluoropropane	CF <sub>3</sub> CHF <sub>2</sub> CF <sub>3</sub>
HFC-236cb	1,1,1,2,2,3-hexafluoropropane	CH <sub>2</sub> FCF <sub>2</sub> CF <sub>3</sub>
HFC-236ea	1,1,1,2,3,3-hexafluoropropane	CHF <sub>2</sub> CHF <sub>2</sub> CF <sub>3</sub>
HFC-236fa	1,1,1,3,3,3-hexafluoropropane	CF <sub>3</sub> CH <sub>2</sub> CF <sub>3</sub>
HFC-245ca	1,1,2,2,3-pentafluoropropane	CH <sub>2</sub> FCF <sub>2</sub> CHF <sub>2</sub>
HFC-245fa	1,1,1,3,3-pentafluoropropane	CHF <sub>2</sub> CH <sub>2</sub> CF <sub>3</sub>
HFC-365 mfc	1,1,1,3,3-pentafluorobutane	CF <sub>3</sub> CH <sub>2</sub> CF <sub>2</sub> CH <sub>3</sub>
HFC-43-10 mee	1,1,1,2,2,3,4,5,5,5-decafluoropentane	CF <sub>3</sub> CHFCH <sub>2</sub> CF <sub>2</sub> CF <sub>3</sub>

## Annex I, Section 2: Perfluorocarbons (PFCs)

PFC-14	tetrafluoromethane (perfluoromethane, carbon tetrafluoride)	CF <sub>4</sub>
PFC-116	hexafluoroethane (perfluoroethane)	C <sub>2</sub> F <sub>6</sub>
PFC-218	octafluoropropane (perfluoropropane)	C <sub>3</sub> F <sub>8</sub>
PFC-3-1-10 (R-31-10)	decafluorobutane (perfluorobutane)	C <sub>4</sub> F <sub>10</sub>
PFC-4-1-12 (R-41-12)	dodecafluoropentane (perfluoropentane)	C <sub>5</sub> F <sub>12</sub>
PFC-5-1-14 (R-51-14)	tetradecafluorohexane (perfluorohexane)	C <sub>6</sub> F <sub>14</sub>
PFC-c-318	octafluorocyclobutane (perfluorocyclobutane)	c-C <sub>4</sub> F <sub>8</sub>

## Annex I, Section 3: Other perfluorinated compounds

sulphur hexafluoride	SF <sub>6</sub>
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Annex II of the Regulation is listing 'other fluorinated greenhouse gases subject to reporting in accordance with article 19'. These substances are Unsaturated hydro(chloro)fluorocarbons (e.g. HFC-1234yf), Fluorinated ethers and alcohols (e.g. HFE-125), and Other perfluorinated compounds (e.g. nitrogen trifluoride).

Exceptions: In contrast to the above defined products, the following product lines may contain such Fluorinated Greenhouse Gases if clearly identified in the safety data sheet:

<b>BAYDUR</b>	<b>BAYFLEX</b>	<b>BAYSAFE</b>	<b>BAYTHERM</b>
<b>BAYFIT</b>	<b>BAYMER</b>	<b>BAYSEAL</b>	

The safety data sheet of Covestro Deutschland AG will identify Fluorinated Greenhouse Gases according to the Regulation (EU) No. 517/2014 in chapter 3 when 0.1% or more of these blowing agents are incorporated. There are no products on sale with intentionally added Fluorinated Greenhouse Gases below 0.1%.

Additionally, Regulation (EU) No. 517/2014 phased out some specific applications of fluorinated greenhouse gases according to Annex III in the past. Among others, the following applications may be of relevance for your business; deadline in brackets:

4. Windows for domestic use that contain fluorinated greenhouse gases (2007)
5. Other windows that contain fluorinated greenhouse gases (2008)
6. Footwear that contains fluorinated greenhouse gases (2006)
7. Tyres that contain fluorinated greenhouse gases (2007)
8. One-component foams, except when required to meet national safety standards, that contain fluorinated greenhouse gases with GWP of 150 or more (2008)
10. Domestic refrigerators and freezers that contain HFCs with GWP of 150 or more (2015)
11. Refrigerators and freezers for commercial use (2020/22)
16. Foams that contain HFCs with GWP of 150 or more except when required to meet national safety standards: Other foams than extruded polystyrene (XPS) (2023)

Further applications have restrictions, please review the EU regulation for further details.

*Version 3. The information contained herein is believed to be accurate as of the date of this document. If any of the above mentioned regulations change after the date of declaration, this information is no longer valid.*

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