

EU's F-gas Regulation on Detectortesters products: Solo® A10 and Solo® A10S

In response to the [European Climate Law](#) and the need for stronger climate action, the European Commission reviewed the [2014 F-gas Regulation](#) and, on 7 April 2022, proposed a new regulation to the European Parliament and the Council of the European Union. The new [F-gas Regulation \(EU\) 2024/573](#) was adopted on 7th February 2024, and started to apply on 11th March 11, 2024. Its implementation will be phased in, varying by each member state, with full compliance by all member states required by 31st December 2024.

Which products are affected by the Regulation (EU) 2024/573?

Detectortesters products Solo A10 and Solo A10S are Technical Aerosols free of HFCs¹; their mixtures, although, do fall within the scope of Regulation 2024/573 since contains fluorinated greenhouse gas classified as unsaturated hydro(chloro) fluorocarbons as per Annex II of Regulation 2024/573.

Part No.	Substance contained in the mixture Chemical formula	Qty. per can [KG]	GWP ^[2] (Substance)	tCO ₂ e ^[3] per can
Solo A10-XXX	CHF = CHCF ₃	0.1548	1.37	0.000212076
Solo A10S-XXX	CHF = CHCF ₃	0.252	1.37	0.00034524

How does the Regulation 2024/573 affect these products?

Solo A10 and Solo A10S mixtures do fall within the scope of Regulation 2024/573 as containing fluorinated greenhouse gas classified as unsaturated hydro(chloro)fluorocarbons as per Annex II of Regulation 2024/573.

Are these products affected by the Quota System?

No, Solo A10 and Solo A10S do not fall within the quota system as the mixture of both products is free of hydrofluorocarbons^[1].

What is the F-gas Portal (Article 22)?

The [F-gas Portal](#) is the European Commission's centralised online platform to implement the HFC quota phase-down, manage the requirements of imports^[5] and exports^[6], and facilitate the reporting obligations under the [F-gas Regulation \(EU\) No 2024/573](#).

The F-gas portal serves as an access point for competent authorities and customs across Member States, facilitating the enforcement and monitoring of the F-gas Regulation.

Under Article 22(1) of the F-Gas Regulation, the import and export of fluorinated greenhouse gases, and products and equipment containing those gases or whose functioning relies upon those gases shall be subject to the presentation of a valid licence to customs authorities issued by the Commission pursuant to Article 20(4) and (5), except in the case of temporary storage.

Who needs to register?

Importers of products or equipment containing fluorinated greenhouse gases listed in Annex I, II or III or Regulation (EU) 2024/573

How to register?

A step-by-step guide on how to register to the portal is available on the European Commission's website: [F-gas Portal - Fluorinated Greenhouse Gases - Climate Action \(europa.eu\)](#). For more details, please refer to the [Regulation \(EU\) 2024/573](#)

Main definitions included in Article 3:

[1] 'Hydrofluorocarbons' or 'HFCs' means the substances listed in Section 1 of Annex I or mixtures containing any of those substances.

[2] 'Global warming potential' or 'GWP' means the climatic warming potential of a greenhouse gas relative to that of carbon dioxide (CO₂), calculated in terms of the 100-year global warming potential, unless otherwise specified, of one kilogram of a greenhouse gas relative to one kilogram of CO₂, as set out in Annexes I, II, III and VI or in the case of mixtures, calculated in accordance with Annex VI.

[3] 'Tonne of CO₂ equivalent' [tCO₂e] means a quantity of greenhouse gases expressed as the product of the weight of the greenhouse gases in metric tonnes and of their global warming potential.

[4] 'Placing on the market' means the customs release for free circulation in the Union or the supplying or making available to another person within the Union, for the first time, for payment or free of charge, or the use of substances produced, or of products or equipment manufactured, for own use.

[5] 'Import' means the entry of substances, products and equipment into the customs territory of the Union, in so far as the territory is covered by a ratification of the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer (the 'Protocol') and includes temporary storage and the customs procedures referred to in Articles 201 and 210 of Regulation (EU) No 952/2013.

[6] 'Export' means the exit of substances, products and equipment from the customs territory of the Union, in so far as the territory is covered by a ratification of the Protocol;

[7] 'Undertaking' means any natural or legal person which carries out an activity referred to in this Regulation.

How to calculate the equivalent CO₂

To calculate the equivalent CO₂ for a shipment of aerosols, the following information is required;

1. Weight of HFC1234ze per aerosol (see table below)
2. The GWP for the HFC1234ze (see table below)
3. Number of aerosols in the shipment

Part No.	Substance contained in the mixture Chemical formula	Qty. per can [KG]	GWP ^[2] (Substance)
Solo A10-XXX	CHF = CHCF ₃	0.1548	1.37
Solo A10S-XXX	CHF = CHCF ₃	0.252	1.37

The calculation is:

$$\frac{\text{Weight of gas per aerosol(kg)} \times \text{GWP} \times \text{No. cans}}{1000} = \text{CO}_2 \text{ equivalent (tonnes)}$$

Example: For a shipment of 240 Solo A10 and 120 Solo A10S this would be;

$$\frac{(0.1548 \times 1.37 \times 240)}{1000} + \frac{(0.252 \times 1.37 \times 120)}{1000} = 0.092327 \text{ tonnes}$$

What is Equivalent CO₂

Equivalent CO₂ refers to the environmental impact of a product in tonnes of CO₂. This is calculated using the GWP (Global Warming Potential) of the materials in a product and the weight of the material present. This only affects materials specified in the regulation and ignores any other materials in the aerosols and the packaging. This is not the weight of the packaged products.