

REGULATORY ALERT¹

Issue: Final EPA rule regarding HFC use in aerosol products likely to drive material obsolescence issues by suppliers.

Background:

The US EPA's Final Technology Transition Rule under the American Innovation and Manufacturing Act of 2020² is restricting the manufacture or import of HFC-containing aerosol products with a global warming potential of 150 or greater beginning **January 1, 2025**. The rule applies to the list of HFCs below used in aerosol products.

Common Name	Chemical Formula	CAS#	Global Warming Potential (GWP) Exchange Value
HFC-125	CHF ₂ CF ₃	354-33-6	3,500
HFC-134	CHF ₂ CHF ₂	359-35-3	1,100
HFC-134a	CH ₂ FCF ₃	811-97-2	1,430
HFC-143	CH ₂ FCHF ₂	430-66-0	353
HFC-143a	CH ₃ CF ₃	420-46-2	4,470
HFC-152	CH ₂ FCH ₂ F	624-72-6	53
HFC-152a	CH ₃ CHF ₂	75-37-6	124
HFC-227ea	CF ₃ CHFCF ₃	431-89-0	3,220
HFC-23	CHF ₃	75-46-7	14,800
HFC-236cb	CH ₂ FCF ₂ CF ₃	677-56-5	1,340
HFC-236ea	CHF ₂ CHFCF ₃	431-63-0	1,370
HFC-236fa	CF ₃ CH ₂ CF ₃	690-39-1	9,810
HFC-245ca	CH ₂ FCF ₂ CHF ₂	679-86-7	693
HFC-245fa	CHF ₂ CH ₂ CF ₃	460-73-1	1,030
HFC-32	CH ₂ F ₂	75-10-5	675
HFC-365mfc	CF ₃ CH ₂ CF ₂ CH ₃	406-58-6	794
HFC-41	CH ₃ F	593-53-3	92
HFC-43-10mee	CF ₃ CHFCHFCF ₂ CF ₃	138495-42-8	1,640

Aerosol products can be blends of multiple substances and may therefore have a different final GWP than the GWP of individual substances. It may be helpful to consult with a resource such as the International Institute of Refrigeration (IIR) for GWP values for some typical HFC blends (<https://iifir.org/en/encyclopedia-of-refrigeration/global-warming-potential-gwp-of-hfc-refrigerants>).

There is a *temporary* list of exceptions below for the January 1, 2025 deadline, but **by January 1, 2028, ALL HFC-containing aerosol products with a global warming potential of 150 or greater will need to comply**. It is important that you review your usage of impacted aerosol products and determine if an alternate should be identified. The deadlines may drive manufacturers/importers of these products to stop making them before the regulatory deadlines take effect, posing a near term risk of obsolescence.

¹ The information in this alert is not legal advice and no reliance on this alert is intended or permitted. It is for awareness purposes only. Companies receiving this communication are advised to perform an independent analysis of the rule and consult legal counsel as needed.

² American Innovation and Manufacturing (AIM) Act of 2020, (42 U.S.C. §7675)

Link to Federal Register: <https://www.govinfo.gov/content/pkg/FR-2023-10-24/pdf/2023-22529.pdf>

Link to US EPA Final Technology Transition Rule Fact Sheet: <https://www.epa.gov/system/files/documents/2023-10/technology-transitions-final-rule-fact-sheet-2023.pdf>

Exceptions to the January 1, 2025 Deadline include:

- Products that use HFC-43-10mee (1,1,1,2,3,4,4,5,5,5-pentafluoropentane) or HFC-245fa (1,1,1,3,3-pentafluoropropane) as an aerosol solvent
- Products that use HFC-134a in the following specific uses;
 - A. Cleaning products for removal of grease, flux and other soils from electrical equipment or electronics;
 - B. Refrigerant flushes;
 - C. Products for sensitivity testing of smoke detectors;
 - D. Lubricants and freeze sprays for electrical equipment or electronics;
 - E. Sprays for aircraft maintenance;
 - F. Sprays containing corrosion preventive compounds used in the maintenance of aircraft, electrical equipment or electronics, or military equipment;
 - G. Pesticides for use near electrical wires or in aircraft, in total release insecticide foggers, or in certified organic use pesticides for which EPA has specifically disallowed all other lower-GWP propellants;
 - H. Mold release agents and mold cleaners;
 - I. Lubricants and cleaners for spinnerets for synthetic fabrics;
 - J. Duster sprays specifically for removal of dust from photographic negatives, semiconductor chips, specimens under electron microscopes, and energized electrical equipment;
 - K. Adhesives and sealants in large canisters;