

## Why is Trane transitioning from 410-A refrigerant?

The American Innovation & Manufacturing (AIM) Act directs the U.S. Environmental Protection Agency (EPA) to implement a phasedown of the production and consumption of HFCs by 2035. As part of this work the EPA has proposed a rule (expected to finalize Q3 2023) indicating that beginning January 1, 2025, the U.S. Federal Government will require Residential HVAC equipment to use refrigerants with a Global Warming Potential (GWP) of less than 700. This legislation directly aligns with Trane's commitment to energy-efficient solutions and reducing our carbon footprint.

## What products will be impacted by the required transition?

All refrigerant-bearing products in our premium and value portfolios, including heat pumps, air conditioners, air handlers, coils, packaged units, ductless, and light commercial products will need to transition to support future refrigerant. Currently, we do not anticipate any major impacts to the furnace product portfolio.

## Do these regulations affect Canada, in addition to the U.S.?

Regulations developed by the U.S Environmental Protection Agency (EPA) affect only the United States. Environment Canada is expected to similarly enact changes for Canada, but no rulings have been proposed at this time. Continue to check back in and we will update as more information becomes available.

## How can I stay up-to-date with the latest information regarding the transition?

The Refrigerant Transition Playbook is a great place to explore resources and information ahead of and throughout the transition. The Refrigerant Transition Playbook is located here: [ComfortSite > Marketing Center > Playbook HUB > Trane Refrigerant Transition Playbook](#)

## What does A2L mean?

Refrigerant Classification is defined by ASHRAE 34. The first digit refers to toxicity. The A is lower toxicity, the B is higher toxicity. The numbering 1,2L,2,3 refer to flammability. The lower the number, the lower the flammability. 2L is the lowest flammability classification, refrigerants with this classification are difficult to ignite and non-explosive.

			Examples		
Increasing Flammability ( $S_u$ & HOC)	Higher Flammability	A3	B3	Class 3 Requirements 1. Exhibit flame propagation @ 60C & 101.3 kPa 2. LFL < 0.10 kg/m <sup>3</sup> or HOC > 19,000kJ/kg	Propane (R290)
	Lower Flammability	A2	B2		
	No Flame Propagation	A1	B1	Class 2 Requirements 1. Exhibit flame propagation @ 60C & 101.3 kPa 2. LFL > 0.10kg/m <sup>3</sup> 3. HOC < 19,000 Ki/kg	Hair Spray, Dust-off (R-152a)
		Lower Toxicity	Higher Toxicity	Class 2L Requirements 1. Same as Class 2 requirements & $S_u < 10$ cm/s	R454B, R32
				Class 1 Requirements No flame propagation @ 60C & 101.3kPa	R410A

Increasing Toxicity

Refrigerant Classification (ASHRAE 34 & ISO 817)

## What are the details of the proposed EPA transition rule?

Equipment sold after 1/1/2025, based on manufactured or imported date, must utilize refrigerant with Global Warming Potential (GWP) <700 (Residential HVAC equipment will transition to A2L refrigerants to comply). Equipment manufactured or imported prior to 1/1/2025 will have 12 months to sell through. There will be no R410A partial system replacements allowed after 1/1/2025. Rule is anticipated to finalize Q3 2023. For more details you can find the proposed rule here: <https://www.epa.gov/climate-hfcs-reduction/technology-transitions>; EPA fact sheet: <https://www.epa.gov/system/files/documents/2022-12/TT%20Rule%20NPRM%20Fact%20Sheet%20Final.pdf>

**Will I be able to field convert equipment from R410A to a future refrigerant or from a future refrigerant design back to R410A?**

No, equipment cannot be field converted due to required safety regulations. All our products must meet UL/CSA safety requirements. Due to the change from an A1 to and A2L refrigerant, all systems require additional safety mitigations. These modifications are required to be factory installed to comply with UL safety where the design refrigerant must be present on the factory nameplate for both indoor and outdoor.

**Will we be able to complete outdoor only replacements with the future refrigerant models?**

No, there is no compatibility between the R410A and new R454B or R32 refrigeration designs. Full refrigeration system replacement will be necessary. Furnace only replacements remain unaffected.

**Will there be a dry ship loophole like we saw leveraged during the R22 to R410A transition?**

No, the dry ship 'loophole' exercised during the R22 to R410A will remain closed for the upcoming transition. For clarity, the resolution introduced does not ban dry shipping entirely, instead the DOE updated the ratings procedures for dry shipment which significantly reduce the ability to qualify.