

Ecodesign of professional storage cabinets and blast cabinets: Now is the chance for climate friendly, low-GWP refrigerants

Refrigerants with GWP > 150 can be banned at Tier-1 in 2015 or at Tier-2 in 2016 for professional storage cabinets and blast cabinets.

- **Many models already established on the market:** These product types are well-suited for the use of hydrocarbon refrigerants, such as propane (R290) or isobutane (R600a). Many models using low-GWP refrigerants are well established on the market. 80 models of the best energy classes and all with low-GWP refrigerants can be found at www.topten.eu > Professional Refrigerators. 3 examples are shown below.
- **Products in scope are straightforward:** The range of product sizes, technologies and applications is relatively narrow and establishing GWP thresholds would not be complex.
- **There is a positive side effect:** The Impact Assessment Reports states that hydrocarbons „can achieve 5% to 15% better efficiency than comparable HFC refrigerants“ (HFC: traditional fluorinated refrigerants such as R134a and R404a).



Under-counter refrigerator

- net volume 118 litres
- refrigerant R600a
- ambience +10°C to +43°C
- energy class A+++ according to proposed label

Combined refrigerator-freezer

- net volume 513 litres
- refrigerant R290
- ambience +16°C to +43°C
- energy class B according to proposed label for freezers

Freezer

- net volume 950 litres
- refrigerant R290
- ambience +16°C to +43°C
- energy class A according to proposed label

Phasing out high-GWP refrigerants is the most effective and least bureaucratic approach. The minimal solution would be prominent information on the energy label.

- **Energy label:** If a ban on high-GWP refrigerants is not put in place, as a minimum, information on GWP should be displayed prominently on the energy label (e.g. yes/no checkbox for climate friendly refrigerants, meaning GWP < 150). This would complement the F-Gas regulation, which does not require GWP information on the product label, very well.
- **Bonus/malus has drawbacks:** Under discussion is the option of giving energy efficiency penalties (malus) for high-GWP refrigerants (or a bonus for low-GWP). Drawback A: such correction factors impede comparison between models. Drawback B: if used at all, a malus should be preferred, because bonuses undermine the aims for energy efficiency.

More information

- Appendix on refrigerants - Impact Assessment Reports for Lot 1 products: http://www.taitconsulting.co.uk/Ecodesign_Consultation.html
- Policy recommendations for professional storage cabinets: http://www.topten.eu/uploads/File/Recommendations_Prof-Storage-Refrigerators_Jan13.pdf
- Contact: eva.geilinger@topten.eu