R290 REFRIGERANT FAQ

For Foodservice Dealers

This quick reference answers common questions dealers and technicians have as the industry prepares for the refrigerant transition leading up to 2027.

Certification & Compliance

Q: Will technicians need certification to work with R290?	A: Technicians servicing refrigeration systems must hold EPA Section 608 certification, which covers refrigerant handling and recovery requirements. Because R290 is classified as an A3 flammable refrigerant, many manufacturers also recommend additional safety training for working with flammable refrigerants.[1]
Q: Is R290 going away in 2027?	A: No. The 2027 timeline relates to EPA regulations restricting certain high-GWP HFC refrigerants under the AIM Act. R290 is a low-GWP refrigerant (GWP ≈ 3) and is expected to remain widely used in commercial refrigeration systems.[4]

Safety

Q: Is R290 propane?	A: Yes. R290 is refrigerant-grade propane, a natural hydrocarbon refrigerant with zero ozone depletion potential and very low GWP (GWP ~ 3).[3 6]
Q: Is R290 safe to use in commercial refrigeration equipment?	A: Yes. Modern R290 refrigeration systems are engineered with small refrigerant charges, sealed electrical components, and safety design standards that allow safe operation in commercial foodservice environments.[2 3]

Service & Equipment

Q: Can techs use the same tools and charging equipment with R290?	A: Some service tools may be compatible, but equipment used with R290 must be rated for flammable refrigerants. Technicians should confirm compatibility with gauges, recovery equipment, and leak detection tools before servicing R290 systems.[2]
Q: Will current leak detection meters work with R290?	A: Many modern leak detectors can identify hydrocarbon refrigerants, but technicians must ensure the device is approved for use with A3 flammable refrigerants and designed to avoid spark or ignition risks.[3]
Q: Do R290 systems require special recovery procedures?	A: Yes. Technicians should follow manufacturer service guidelines and safety practices for flammable refrigerants, including proper ventilation and equipment rated for hydrocarbon refrigerants.[3]
Q: Can you mix R410A with R290 or top off an R410A system with R290?	A: No. Refrigerants should never be mixed or substituted in systems not designed for them.[6]

System Design & Performance

Q: Are R290 pressures higher than legacy refrigerants like R410A?	A: No. In many refrigeration applications, R290 systems operate at lower pressures than several legacy refrigerants, which can reduce stress on components and improve efficiency.[6]
Q: Why do R290 systems use smaller refrigerant charges?	A: Hydrocarbon refrigerants like R290 are used in small refrigerant charges to meet safety standards while still providing efficient cooling performance.[1]
Q: Are R290 equipment models louder or hotter?	A: Noise levels and heat rejection depend primarily on equipment design, compressor type, and ventilation, not the refrigerant itself.

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Sources: 1 U.S. Environmental Protection Agency — Section 608 Technician Certification, 2 AHAM — Guidance for Servicing Appliances with Flammable Refrigerants, 3 North American Sustainable Refrigeration Council — Propane (R290) Fact Sheet, 4 U.S. Environmental Protection Agency — AIM Act Refrigerant Transition, 5 Copeland — Propane (R290) Refrigeration Resources, 6 Hussmann — R290 Refrigeration Overview, 7 Manitowoc Ice — Natural Refrigerant Resources. Prepared by Don Stevens — Refrigerant Ready 2027 Initiative.

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