



A2L Refrigerants What They Are and Why They Matter

PROFESSIONAL RESOURCE FOR RESTAURANTS AND FOODSERVICE OPERATORS

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(800) 899-6604

www.rapidscontract.com

If you've been looking into new refrigeration or HVAC equipment, you may have come across the term A2L refrigerants. These refrigerants are quickly becoming the industry standard, especially in commercial kitchens and foodservice operations. But what exactly are they, and why are they important? Let's break it down.

What Are A2L Refrigerants?

Refrigerants are chemicals that absorb and release heat to keep equipment cool. The "A2L" classification comes from ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers) and describes two main characteristics:

"A" = Lower toxicity

"2L" = Low flammability with slow burning velocity

This means A2L refrigerants are considered safe to use in many commercial applications, while still offering strong performance.

Why Is the Industry Moving Toward A2Ls?

For many years, traditional refrigerants such as HFCs (hydrofluorocarbons) were common in refrigeration and HVAC systems. While effective, they have high global warming potential (GWP), contributing to climate change.

A2L refrigerants solve many of these problems. Here's why they're becoming the go-to choice:

- Lower global warming potential – Many A2Ls have GWPs that are much lower than older refrigerants.
- Greater energy efficiency – Equipment designed for A2Ls typically runs more efficiently, which reduces power use.
- Lower emissions – By using less energy and cleaner refrigerants, your system has a smaller environmental footprint.
- Safety – While technically flammable, A2Ls are classified as mildly flammable with low burning velocity. This makes them safer than many other alternatives.

Real-World Examples of A2L Refrigerants

Some of the most common A2L refrigerants you may hear about include:

- R-32 – Known for efficiency and widely used in air conditioning.
- R-1234yf – Popular in automotive systems and gaining use in other sectors.
- R-1234ze(E) – A low-GWP option often used in chillers and industrial refrigeration.
- R-454B – Considered a strong replacement for R-410A in HVAC systems.

These refrigerants are already being integrated into new equipment designs, making them more accessible to restaurants, bars, and commercial facilities.

A2L Refrigerant Regulations You Should Know

The switch to A2Ls isn't just an industry trend – it's backed by federal legislation. The AIM Act (American Innovation and Manufacturing Act) requires the U.S. to phase down the use of high-GWP HFCs.

The Environmental Protection Agency (EPA) is leading this effort, which means equipment manufacturers and foodservice operators are moving toward climate-friendly refrigerants like A2Ls.

By upgrading sooner, operators can:

- Stay ahead of future compliance requirements
- Avoid costly retrofits down the road
- Take advantage of more efficient, long-lasting systems

Why It Matters for Commercial Kitchens

Switching to refrigeration and HVAC systems that use A2L refrigerants isn't only about following regulations – it's also about long-term value. A2L-based

equipment represents a smart investment for restaurants, bars, and other foodservice spaces. Operators can expect several benefits, including:

- Lower operating costs thanks to increased efficiency
- A smaller environmental footprint from reduced emissions
- Improved safety features that allow for broader use

For busy kitchens, these benefits add up to smoother operations and savings throughout the equipment's lifecycle.

At Rapids, we know the foodservice industry is always changing. Our team stays up to date with the latest refrigerant technology and product innovations. Whether you're planning a remodel, outfitting a new space, or replacing older equipment, we can guide you toward refrigeration systems that use A2L refrigerants.

We'll help you find equipment that is efficient to lower your operating costs, compliant with upcoming regulations, and built for your specific commercial needs.

The transition to A2L refrigerants is already here, and Rapids Contract & Design can help make sure your kitchen is ready.

Contact Rapids Foodservice Contract & Design

- Phone: (800) 899-6604
- Website: www.rapidscontract.com
- Locations:
 - 6201 South Gateway Dr., Marion, IA 52302
 - 2475 Doswell Ave – Suite B, St Paul, MN 55108
 - 13789 Rider Trail North – Suite 105, Earth City, MO 63045

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