



Shaping Tomorrow's Built Environment Today

What Are You Looking For?



STANDARDS 15 & 34

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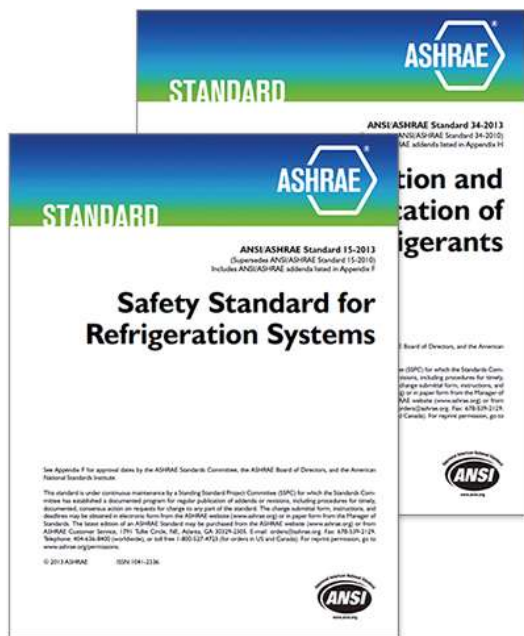


Standard 15-2019 (packaged w/ Standard 34-2019) -- *Safety Standard for Refrigeration Systems* and *Designation and Safety Classification of Refrigerants* (ANSI Approved)

ASHRAE's key standards guiding refrigerant identification and usage have been revised to meet governmental regulation and achieve improved performance. Standards 15 and 34 provide essential guidance to manufacturers, design engineers and operators who need to stay current with new air conditioning and refrigerating requirements.

Standard 34 describes a shorthand way of naming refrigerants and assigns safety classifications based on toxicity and flammability data, while Standard 15 establishes procedures for operating equipment and systems when using those refrigerants.

ASHRAE offers the standards as a set.



ASHRAE Standard 15 establishes safeguards for life, limb, health, and property and prescribes safety requirements. This standard is directed toward the safety of persons and property on or near the premises where refrigeration facilities are located.

What's New in Standard 15-2019:

- Makes changes to requirements for R-717 ammonia systems

- Introduces requirements specific to Low Global Warming Potential (Low GWP) A2L refrigerants

- Changes restrictions for small, self-contained systems with higher-flammability refrigerants

- Defines “low-probability pumps” and provides requirements for their use

- Identifies requirements when changing a refrigerant within the same refrigerant class and lists restrictions on mixing refrigerants from different classes

ASHRAE Standard 34 establishes a uniform system for assigning reference numbers, safety classifications, and refrigerant concentration limits to refrigerants. The standard also identifies requirements to apply for designations and safety classifications for refrigerants and to determine refrigerant concentration limits. Safety classifications based on toxicity and flammability data are included along with refrigerant concentration limits for the refrigerants.

What's New in Standard 34-2019:

- Addition of fifteen total new refrigerants

- Revisions to make 2L a separate flammability classification of refrigerants

- Changes that base toxicity classification on the nominal formulation of the blend

- Corrections to language for the proper naming of molecules containing iodine

- Revisions to address fluids whose critical temperature is lower than 130°F (54.4°C)

- Standardization of terminology

Other Refrigeration Resources

Refrigeration is critical for industrial processes, food storage, and medical applications and the cooling cycle lies at the heart of air conditioning. **Expert guidance is essential.**

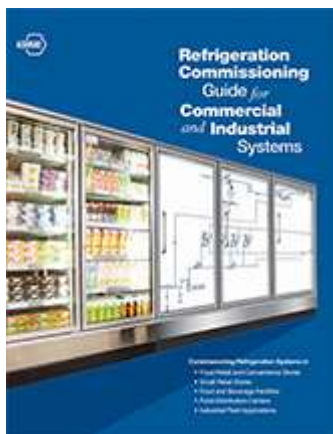
Refrigeration Commissioning Guide

2018 ASHRAE Handbook - Refrigeration (SI)

Web based eLearning Courses

The Essential Guide for Commissioning Refrigeration Systems

The first of its kind, Refrigeration Commissioning Guide for Commercial and Industrial Systems provides guidance to owners and managers of commercial and industrial facilities that use refrigeration systems to help ensure that project requirements are met and owners' expectations are achieved.



LEARN MORE

The purpose of this fact sheet is to provide an update on ASHRAE standards for refrigerants and to introduce the new refrigerants that have been awarded an "R" number over the last few years and introduced into the international market.



Update on New Refrigerants Designations and Safety Classification

McGraw-Hill- Industrial Refrigeration Handbook

The Future of Refrigerants: Challenges and Opportunities (MENA)

New ASHRAE-Classified Refrigerants to Meet Society's Changing Needs

New Developments in Lower GWP Refrigerants (MENA)

Variable Refrigerant Flow System Design & Application

Variable Refrigerant Flow Systems: Design & Applications (MENA)

Variable Refrigerant Flow Systems: Technology Introduction





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With more than 50,000 members from over 132 nations, ASHRAE is a diverse organization dedicated to advancing the arts and sciences of heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world.



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