ADDENDA

ANSI/ASHRAE Addendum ae to
ANSI/ASHRAE Standard 34-2022

Designation and Safety Classification of Refrigerants

Approved by ASHRAE and the American National Standards Institute on May 31, 2024.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. Instructions for how to submit a change can be found on the ASHRAE® website (www.ashrae.org/continuous-maintenance).

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FOREWORD

Addendum ae adds ethers and cyclobutene to the list of substances that can be explicitly determined from the refrigerant numbers and corrects reference to the location of fractionation analysis under conditions of leakage in Normative Appendix B.

Informative Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.

Addendum ae to Standard 34-2022

Modify Section 4 as follows. The remainder of Section 4 remains unchanged.

4. NUMBER OF REFRIGERANTS

[. . .]

4.1 The identifying numbers assigned to the hydrocarbons, ~~and~~ halocarbons, and ethers of the methane, ethane, ethene, propane, propene, butane, butene, ~~and~~ cyclobutane, and cyclobutene series are such that the chemical composition of the compounds can be explicitly determined from the refrigerant numbers, and vice versa, without ambiguity. The molecular structure can be similarly determined for the methane, ethane, ethene, and most of the propane and propene, butane, butene, and cyclobutene series from only the identification number.

[. . .]

Modify Section B2.1 as follows. The remainder of Section B2.1 remains unchanged.

NORMATIVE APPENDIX B
DETAILS OF TESTING—FLAMMABILITY

[. . .]

B2.1 The applicant shall report results of a fractionation analysis made to determine vapor-phase and liquid-phase compositions of refrigerant blends under conditions of leakage (see Section B2.~~3~~4) ~~and successive charge/recharge conditions (see Section B2.4)~~. The analysis shall be validated through experimentation. A computer or mathematical model may be used to identify the WCFF. If a computer or mathematical model is used, then the applicant shall identify the model used and shall submit experimental data that verify the accuracy of the model at the conditions that predict the WCFF.

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ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating Standards and Guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system's intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE's primary concern for environmental impact will be at the site where equipment within ASHRAE's scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.

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As an industry leader in research, standards writing, publishing, certification, and continuing education, ASHRAE and its members are dedicated to promoting a healthy and sustainable built environment for all, through strategic partnerships with organizations in the HVAC&R community and across related industries.

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