



# ADDENDA

**ANSI/ASHRAE Addendum n to  
ANSI/ASHRAE Standard 34-2022**

# Designation and Safety Classification of Refrigerants

Approved by ASHRAE and the American National Standards Institute on August 30, 2024.

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**FOREWORD**

Addendum n updates Table 4-2 to add previously missing LFL and burning velocity (BV) values for several A2L refrigerants and corrects several RCL values.

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

**Addendum n to Standard 34-2022**

*Modify Table 4-2 as shown. Portions of Table 4-2 that are not shown herein remain unchanged.*

**Table 4-2 Data and Safety Classifications for Refrigerant Blends**

Refrigerant Number	[...]	RCL <sup>a</sup>			LFL <sup>j</sup>			BV <sup>p</sup>	Highly Toxic or Toxic <sup>f</sup> Under Code Classification
		ppm v/v	lb/1000 ft <sup>3</sup>	g/m <sup>3</sup>	ppm v/v	lb/1000 ft <sup>3</sup>	g/m <sup>3</sup>	(cm/s)	
[...]	[...]								
457B		19,000	3.7	59	76,000	14.9	239	<u>4.9</u>	Neither
457C		13,800	3.4	54	55,000	13.6	215	<u>5.6</u>	Neither
[...]	[...]								
467A		31,000	<del>6.7</del> <u>5.7</u>	<del>110</del> <u>92</u>	<u>125,000<sup>m</sup></u>	<u>22.9<sup>m</sup></u>	<u>367<sup>m</sup></u>	<u>&lt;4</u>	Neither
468A		18,000	<del>4.1</del> <u>4.2</u>	<del>66</del> <u>68</u>	<u>73,000</u>	<u>16.9</u>	<u>270</u>	<u>2.1</u>	Neither
468B		18,000	<del>4.4</del> <u>4.3</u>	70	<u>72,000</u>	<u>17.3</u>	<u>278</u>	<u>7.3<sup>q</sup></u>	Neither
468C		23,000	4.3	69	<u>92,000</u>	<u>17.2</u>	<u>276</u>	<u>7.6</u>	Neither
[...]	[...]								
474A		13,000	3.3	53	53,000	13	209	<u>3.3</u>	Neither
[...]	[...]								

**Informative Note:** LFL data values highlighted in gray in this table are based on conditions other than WCF @ 23°C (73.4°F). Refer to applicable table footnotes for details.

a. Data taken from Calm<sup>8,9,10</sup>, Coombs<sup>11,12</sup>, and Wilson and Richard<sup>13</sup> (see Section 10).

[...]

f. *Highly toxic, toxic, or neither*, where *highly toxic* and *toxic* are as defined in the *International Fire Code*<sup>1</sup>, *Uniform Fire Code*<sup>2</sup>, and OSHA regulations, and *neither* identifies those refrigerants having lesser toxicity than either of those groups<sup>1,2,3</sup>.

[...]

j. LFL is based on WCF @ 23°C (73.4°F) unless otherwise noted.

[...]

o. Reserved for future assignment

p. BV is based on WCF @ 23°C (73.4°F) unless otherwise noted.

q. WCF BV @ 23°C (73.4°F)

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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.

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