ASHRAE ADDENDA

Designation and Safety Classification of Refrigerants

Approved by the ASHRAE Standards Committee on June 26, 2010; by the ASHRAE Board of Directors on June 30, 2010; and by the American National Standards Institute on July 1, 2010.

These addenda were 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. The change submittal form, instructions, and deadlines may be obtained in electronic form from the ASHRAE Web site (www.ashrae.org) or in paper form from the Manager of Standards.

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The Assistant Director of Technology for Standards and Special Projects of ASHRAE should be contacted for:

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b. participation in the next review of the Standard,

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In referring to this Standard or Guideline and in marking of equipment and in advertising, no claim shall be made, either stated or implied, that the product has been approved by ASHRAE.
Add the following underlined data to Table 2 and Table D2 in the columns indicated.

**TABLE 2  Data and Safety Classifications for Refrigerant Blends**

Refrigerant Number = 407F
Composition (Mass %) = R-32/125/134a (30.0/30.0/40.0)
Composition tolerances = (±2.0 / ± 2.0 / ± 2.0)
OEL = 1000
Safety Group = A1
RCL = 87,000 ppm v/v; 290 g/m³; 18 lb/Mcf
Highly Toxic or Toxic Under Code Classification = Neither

**TABLE D2  Data for Refrigerant Blends**

Refrigerant Number = 407F
Composition (Mass %) = R-32/125/134a (30.0/30.0/40.0)
Average Molecular Mass = 82.1
Bubble Point (°C) = –46.1
Dew Point (°C) = –39.7
Bubble Point (°F) = –51.0
Dew Point (°F) = –39.5

(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

**FOREWORD**

This addendum adds new refrigerant 407F to Table 2 and Table D2.

**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.
FOREWORD

This addendum adds new refrigerant 417B to Table 2 and Table D2.

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 b to 34-2010

Add the following underlined data to Table 2 and Table D2 in the columns indicated.

### TABLE 2 Data and Safety Classifications for Refrigerant Blends

<table>
<thead>
<tr>
<th>Refrigerant Number</th>
<th>Composition (Mass %)</th>
<th>Composition tolerances</th>
<th>OEL</th>
<th>Safety Group</th>
<th>RCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>417B</td>
<td>R-125/134a/600 (79.0/18.3/2.7)</td>
<td>(±1.0 / ±1.0 / ±0.1, -0.5)</td>
<td>1000</td>
<td>A1</td>
<td>15,000 ppm v/v, 70 g/m³; 4.3 lb/Mcf</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Highly Toxic or Toxic Under Code Classification = Neither</td>
</tr>
</tbody>
</table>

### TABLE D2 Data for Refrigerant Blends

<table>
<thead>
<tr>
<th>Refrigerant Number</th>
<th>Composition (Mass %)</th>
<th>Average Molecular Mass</th>
<th>Bubble Point (°C)</th>
<th>Dew Point (°C)</th>
<th>Bubble Point (°F)</th>
<th>Dew Point (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>417B</td>
<td>R-125/134a/600 (79.0/18.3/2.7)</td>
<td>113.1</td>
<td>-44.9</td>
<td>-41.5</td>
<td>-48.8</td>
<td>-42.7</td>
</tr>
</tbody>
</table>
(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

FOREWORD

This addendum modifies the language in 6.1.2, Toxicity Classification, to clarify the intent.

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 d to 34-2010

Revise Section 6.1.2 as follows:

6.1.2 Toxicity Classification. Refrigerants shall be assigned to one of two classes—A or B—based on allowable exposure:

Class A refrigerants are of a lower degree of toxicity as indicated by a PEL of 400 ppm or greater, if assigned; otherwise, a recommended have an occupational exposure limit (OEL) of 400 ppm or greater.

Class B refrigerants are those of a higher degree of toxicity as indicated by a PEL of less than 400 ppm, if assigned; otherwise, a recommended have an OEL of less than 400 ppm.
POLICY STATEMENT DEFINING ASHRAE’S CONCERN FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES

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.