



**BSR/ASHRAE Addendum ag
to ANSI/ASHRAE Standard 34-2022**

Public Review Draft

Proposed Addendum ag to Standard 34-2022, Designation and Safety Classification of Refrigerants

**First Public Review (June 2024)
(Draft shows Proposed Changes to Current Standard)**

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FOREWORD

This proposed addendum adds the zeotropic refrigerant blend R-493A to Tables 4-2 and D-2.

Note: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.

Addendum ag to Standard 34-2022

Modify Tables 4-2 and D-2 as shown.

Table 4-2 Data and Safety Classifications for Refrigerant Blends

Refrigerant Number = 493A

Composition (Mass %) = R-290/600a /600 (9.4/30.9 /59.7)

Composition tolerances = (± 0.8/ ± 2.0/ ± 2.0)

OEL = 1,000 ppm v/v

Safety Group = A3

RCL = 1,700 ppm / 0.24 lb/1000 ft³ / 3.9 g/m³

LFL = 15,000 ppm /2.2 lb/1000 ft³ / 35 g/m³

Highly Toxic or Toxic Under Code Classification = Neither

Table D-2 Data Classifications for Refrigerant Blends

Refrigerant Number = 493A

Composition (Mass %) = R-290/600a /600 (9.4/30.9 /59.7)

Average Relative Molar Mass = 56.44 g/mol

Bubble Point (°F) = 8.8°F

Dew Point (°F) = -20.5°F

Bubble Point (°C) = -12.9°C

Dew Point (°C) = -6.4°C