

**Index of Addenda to
ANSI/ASHRAE Standard 34**

8/2/2011

Addendum ¹						Status	Section/Brief Description ²
1992	1997	2001	2004	2007	2010		
p (PRD)	p (PRD)	p (PRD)	p	Incorporated		Third public review period 6/8/2000 through 8/7/2000. Fourth public review (ISC to the third public review) approved by SSPC 6/28/2004 (Nashville). Approved for fourth public review (ISC) by SPLS 10/2/2004. The 45-day fourth public review period was held 10/22/2004 through 12/6/2004 and was announced in the October 22, 2004 ASHRAE Standards Actions. No comments were received from the fourth public review. SSPC 34 approved publication at the ASHRAE Winter Meeting on 2/7/05 (Orlando). StdC approval 6/30/05. ASHRAE BOD approval 6/30/05. ANSI approval 7/28/05. Published in the 2006 Supplement and incorporated in the 2007 edition.	Proposed addendum revises the refrigerant flammability classification and specifies the flammability and fractionation testing procedures.
ac (PRD)	a	Incorporated				StdC approval 1/17/1998. ASHRAE BOD approval 1/22/1998. ANSI approval 2/5/1998. Published.	Table 1: Deletes refrigerants no longer in use; edits chemical formula for consistency with IUPAC conventions.
af (PRD)	b	Incorporated				StdC approval 1/17/1998. ASHRAE BOD approval 1/22/1998. ANSI approval 2/5/1998. Published.	Table 2: Adds a designation and safety classification for R-413A.
ag (PRD)	c	Incorporated				StdC approval 1/17/1998. ASHRAE BOD approval 1/22/1998. ANSI approval 2/5/1998. Published.	Tables 1 and 2: Deletes safety classification for R-C318 and R-405A.
aj (PRD)	d	Incorporated				StdC approval 1/17/1998. ASHRAE BOD approval 1/22/1998. ANSI approval 2/5/1998. Published.	Section 8.8: Deletes application requirement for hazard signals recommendation.
ak (PRD)	e	Incorporated				StdC approval 1/17/1998. ASHRAE BOD approval 1/22/1998. ANSI approval 2/5/1998. Published.	Table 1: Adds a designation and safety classification for R-236fa.
al (PRD)	f	Incorporated				StdC approval 1/17/1998. ASHRAE BOD approval 1/22/1998. ANSI approval 2/5/1998. Published.	Table 2: Adds a designation and provisional safety classification for R-407E.
	g (PRD)					Public review period 4/10/1998 through 6/9/1998. SSPC recommended withdrawal 4/29/2002. Withdrawn.	Table 2: Proposes to add designation and safety classification for R-411C.
am (PRD)	h	Incorporated				StdC approval 2/5/2000. ASHRAE BOD approval 2/10/2000. ANSI approval 4/25/2000. Published.	Table 2: Adds a designation and provisional safety classification for R-245fa.

Addendum¹

Status

Section/Brief Description²

1992	1997	2001	2004	2007	2010		
	i (PRD)					Public review period 4/10/1998 through 6/9/1998. SSPC recommended withdrawal. Withdrawn.	Table 1: Proposes to change the safety classification of R-1270 from “A3” to “B3”.
	j	Incorporated				StdC approval 2/5/2000. ASHRAE BOD approval 2/10/2000. ANSI approval 4/25/2000. Published.	Sections 8.6 and 8.6.2: Edits test for clarity on toxicity data submission requirements for blends.
	k	Incorporated				StdC approval 2/5/2000. ASHRAE BOD approval 2/10/2000. ANSI approval 4/25/2000. Published.	Section 8.5.3: Deletes evidence of commercialization data submission requirements.
ah (PRD)	l	Incorporated				StdC approval 6/24/2000. ASHRAE BOD approval 6/29/2000. ANSI approval 11/15/2000. Published.	Table 2: Adds a designation and safety classification for R-414A.
ai (PRD)	m	Incorporated				StdC approval 6/24/2000. ASHRAE BOD approval 6/28/2001. ANSI approval 11/6/2001. Published.	Table 2: Adds a designation and safety classification for R-414B.
an (PRD)	n	Incorporated				StdC approval 1/27/2001. ASHREA BOD approval 2/1/2001. ANSI approval 5/25/2001. Published.	Table 2: Adds a designation and safety classification for R-416A.
	o	Incorporated				StdC approval 6/24/2000. ASHRAE BOD approval 6/29/2000. ANSI approval 11/15/2000. Published.	Section 8.6: Clarifies acceptable sources of toxicity information for refrigerant designation and classification applications.
	p	Incorporated				StdC approval 6/24/2000. ASHRAE BOD approval 6/29/2000. ANSI approval 11/15/2000. Published.	Section 6.1.5 and Table 2: Deletes dual classifications for blends and specifies a single classification based on the worst case of fractionation.
	q (PRD)	a	Incorporated			StdC approval 6/22/2002. ASHRAE BOD approved for publication 6/27/2002. ANSI approval 8/20/2002. Published.	Table 1: Adds a safety classification “A1” for R-C318. (Note: This safety classification was deleted by Addendum c to 34-1997.)
	r	Incorporated				StdC approval 1/27/2001. ASHRAE BOD approval 1/1/2001. ANSI approval 5/25/2001. Published.	Table 2: Adds designation and safety classification for R-417A.
	s	Incorporated				StdC approval 6/23/2001. ASHRAE BOD approval 6/28/2001. ANSI approval 10/1/2001. Published.	Table 1: Changes the safety classification for R-245fa to B1.
	t	Incorporated				StdC approval 6/23/2001. ASHRAE BOD approval 6/28/2001. ANSI approval 10/1/2001. Published.	Table 2: Changes the composition tolerances for R-402A and R-402B.

Addendum¹

Status

Section/Brief Description²

1992	1997	2001	2004	2007	2010		
aa (PRD)	u (PRD)	u (PRD)	u	Incorporated		Third public review period 12/1/2000 through 1/30/2001. Fourth public review (ISC to 3 rd public review) approved by SSPC 6/30/2003. Approval by SPLS pending Technology Weekend. SPLS failed to approve for public review 10-4-2003. Fourth public review approved by SPLS by letter ballot 11/5/2003. 45-day fourth public review (ISC to 3 rd public review) period 12/5/2003 through 1/19/2003 announced in the December 5, 2003 ASHRAE Standards Actions. There were 8 comments from 2 commenters on the first public review. Responses to commenters sent. 1 comment from 1 commenter unresolved. Approved for publication by the SSPC 6/28/2004 (Nashville), reconsideration letter ballot closed 7/29/2004. Approved again by SSPC at teleconference 8/25/2004 and subsequent letter ballot to absent member. Approved for publication by Standards Committee 10/3/2004 and Technology Council 10/4/2004. ASHRAE BOD approval 2/10/05. One appeal filed; an appeal hearing was held at the ASHRAE Annual Meeting on June 26, 2005 in Denver, CO. The appeal was denied and the addendum was approved by ANSI on 4/21/06 and published in the 2006 Supplement and incorporated in the 2007 edition.	Section 7 and Tables 1 and 2: Proposes to add a new section to specify the criteria to determine recommended "Refrigerant Concentration Limits (RCL)" in occupied spaces and to add RCL values to Tables 1 and 2.
		b	Incorporated			StdC approval 10/6/2002. ASHRAE BOD approval 1/30/2003. ANSI approval 4/3/2003. Published.	Table 2 and Table B1: This addendum adds a designation of R-415A to the blend R-22/152a (82.0/18.0) with tolerances of ($\pm 1.0/\pm 1.0$) and a safety classification of A2.
		c	Incorporated			StdC approval 1/29/2003. ASHRAE BOD approval 1/30/2003. Approved by ANSI 9/25/2003. Published.	Table 2 and Table B1: This addendum adds a designation of R-418A to the blend R-290/22/152a (1.5/96.0/2.5) with tolerances of ($\pm 0.5/\pm 1.0/\pm 0.5$) and a safety classification of A2.
		d	Incorporated			StdC approval 1/25/2003. ASHRAE BOD approval 1/30/2003. ANSI approval 4/3/2003. Published.	Section 3: This addendum further defines the term "refrigerant" as it applies to ANSI/ASHRAE Standard 34-2001, Designation and Safety Classification of

Addendum¹

Status

Section/Brief Description²

1992	1997	2001	2004	2007	2010		
							Refrigerants.
		e	Incorporated			StdC approval 1/25/2003. ASHRAE BOD approval 1/30/2003. ANSI approval 4/3/2003. Published.	Section 4.4: This addendum further defines the method for designation of refrigerant blends. It provides additional guidance on the specification of blend compositions and composition tolerances.
		f	Incorporated			StdC approval 6/28/2003. ASHRAE BOD approval 7/3/2002. ANSI approved 8/6/2003. Published.	Table 2 and Table B1: This addendum adds a designation of R-E170 for dimethyl ether and a safety classification of A3.
		g	Incorporated			StdC approval 6/28/2003. ASHRAE BOD approval 7/3/2002. ANSI approved 8/6/2003. Published.	Table 2 and Table B1: This addendum adds a designation of R-419A to the blend R-125/134a/E170 (77.0/19.0/4.0) with tolerances of ($\pm 1.0/\pm 1.0/\pm 1.0$) and a safety classification of A2.
		h	Incorporated			StdC approval 6/28/2003. ASHRAE BOD approval 7/3/2002. ANSI approved 8/6/2003. Published.	Table 2 and Table B1: This addendum adds a designation of R-415B to the blend R-22/152a (25.0/75.0) with tolerances of ($\pm 1.0/\pm 1.0$) and a safety classification of A2.
		i	Incorporated			StdC approval 6/26/2004. ASHRAE BOD approval 7/1/2004. Approved by ANSI 7/1/2004. Published.	Table 2 and Table B1: This addendum adds a designation of R-420A to the blend R-134a/142b (88.0/12.0) with tolerances of (+1.0, -0.0/ +0.0, -1.0) and a safety classification of A1.
		j	Incorporated			StdC approval 6/26/2004. ASHRAE BOD approval 7/1/2004. Approved by ANSI 7/1/2004. Published.	Sections 6.1.3 and 9: The purpose of this addendum is to cite current ASTM test methods for flammability testing of refrigerants. ASTM E681 has undergone significant changes to improve the repeatability of results. The replacement of the kitchen match head as the ignition source

Addendum ¹						Status	Section/Brief Description ²
1992	1997	2001	2004	2007	2010		
							with the ASTM spark ignition electrode along with other revised ASTM E681 test methods has long been accepted by SSPC-34 as significant improvements for increasing repeatability of test results. The change was originally proposed in public reviews of 34p-92. However, opposition to other, more controversial changes proposed in 34p-92 delayed its adoption.
		k (PRD)	k	Incorporated		Approved for first public review by the SSPC 6/30/2003 (Kansas City). Approval by SPLS pending Technology Weekend. SPLS failed to approve for public review 10-4-2003. First public review approved by SPLS by letter ballot 11/5/2003. 45-day first public review period 12/5/2003 through 1/19/2003 announced in the December 5, 2003 ASHRAE Standards Actions. There were 4 comments from 1 commenter on the first public review. Responses to commenter approved by SSPC by letter ballot 3/23/2004. Approved for publication by the SSPC in Anaheim in January 2004 and a continuation letter ballot followed to those members not present 3/23/2004. Second public review (ISC to 1 st PR) approved by SSPC 6/28/2004 (Nashville). Second public review (ISC) approved by SPLS 10/2/2004. The 30-day second public review period was held from 10/22/2004 through 11/21/2004 and was announced in the October 22, 2004 ASHRAE Standards Actions. No comments were received from the second public review. SSPC 34 approved publication at the ASHRAE Winter Meeting on 2/7/05 (Orlando). StdC approval 6/30/05. ASHRAE BOD approval 6/30/05. ANSI approval 7/1/05. Published in the 2006 Supplement and incorporated in the 2007 edition.	Table 1: This proposed addendum adds a designation of R-601 for pentane (no safety classification) and a designation of R-601a for isopentane with a safety classification of A3.
		1	Incorporated			StdC approval 6/26/2004. ASHRAE BOD approval 7/1/2004. Approved by ANSI 7/1/2004. Published.	Section 3: This addendum modifies the definition for the term "lower flammability limit (LFL)" by deleting the conversion factor from the definition. Conversion factors

Addendum ¹						Status	Section/Brief Description ²
1992	1997	2001	2004	2007	2010		
							vary with pressure and temperature. The inclusion of one conversion factor for one specific temperature and pressure in the definition might lead the reader to believe that it is applicable to all temperatures and pressures.
		m	Incorporated			StdC approval 6/26/2004. ASHRAE BOD approval 7/1/2004. Approved by ANSI 7/1/2004. Published.	Table of Contents, Section 6.1.4, Table B1 of Appendix B: This addendum deletes Table B1 from Appendix B. The deleted information was informative in nature and compared the current safety classifications of refrigerants to those used in the 1989 version of the standard. Although this information had value when the current safety classification system was first introduced in the 1992 edition of the standard, it has little relevance today.
		n (PRD)	n	Incorporated		Approved for first public review by the SSPC 6/30/2003 (Kansas City). Approval by SPLS pending Technology Weekend. SPLS failed to approve for public review 10-4-2003. First public review approved by SPLS by letter ballot 11/5/2003. 45-day first public review period 12/5/2003 through 1/19/2004 announced in the December 5, 2003 ASHRAE Standards Actions. There were 3 comments from 1 commenter on the first public review. Second public review (ISC to 1 st PR) approved by the SSPC 6/28/2004 (Nashville). Second public review approved by SPLS 10/2/2004. The 45-day second public review period was held from 10/22/2004 through 12/6/2004 and was announced in the October 22, 2004 ASHRAE Standards Actions. One comment received from the second public review. Approved for third public review (ISC) by SSPC 34 on 2/7/05 (Orlando) and by SPLS on 4/19/05. The 30-day third public review (ISC) was held from 5/6/05 to 6/5/05 and was announced in the May 6, 2005 ASHRAE Standards Actions. No comments were received. SSPC 34 approved publication at the	Section 4.5: This proposed addendum provides general guidance for numbering of C4-C8 alkanes.

Addendum ¹						Status	Section/Brief Description ²
1992	1997	2001	2004	2007	2010		
						ASHRAE Annual Meeting on 6/27/05 (Denver). Approved for publication by Standards Committee and the ASHRAE BOD in January 2006. ANSI approval 4/10/06. Published in the 2006 Supplement and incorporated in the 2007 edition.	
		o (PRD)	o	Incorporated		Approved for first public review by the SSPC in Anaheim in January 2004 and a continuation letter ballot followed to those members not present 3/23/2004. 30-day first public review period 7/16/2004 through 8/15/2004 announced in the July 16, 2004 edition of the ASHRAE Standards Actions. No comments received on the first public review. Approved for publication by the SSPC by teleconference 8/25/2004 followed by a letter ballot that closed 8/31/2004. Approved for publication by Standards Committee 10/3/2004 and Technology Council 10/4/2004. ASHRAE BOD approval 2/10/05. Published March 2005 and also included in the 2006 Supplement and incorporated in the 2007 edition.	Table 2 and Table B1: This proposed addendum adds a designation of R-421A to the blend R-125/134a (58.0/42.0) and a safety classification of A1.
			q	Incorporated		Approved for first public review by SSPC 6/28/2004 (Nashville). First public review approved by SPLS 10/2/2004. The 30-day first public review was held from 10/22/2004 through 11/21/2004 and was announced in the October 22, 2004 ASHRAE Standards Actions. No comments were received from the public review. SSPC 34 approved publication at the ASHRAE Winter Meeting on 2/7/05 (Orlando). StdC approval 6/30/05. ASHRAE BOD approval 6/30/05. ANSI approval 7/1/05. Published in the 2006 Supplement and incorporated in the 2007 edition.	Table 2: This proposed addendum adds a designation of R-422A to the blend R-125/134a/600a (85.1/11.5/3.4) with tolerances of ($\pm 1.0/\pm 1.0/+0.1, -0.4$) and a safety classification of A1.
			r	Incorporated		Approved for first public review by SSPC 6/28/2004 (Nashville). First public review approved by SPLS 10/2/2004. The 30-day first public review period was held from 10/22/2004 through 11/21/2004 and was announced in the October 22, 2004 ASHRAE Standards Actions. No	Table 2: This proposed addendum adds a designation of R-421B to the blend R-125/134a (85.0/15.0) with tolerances of ($\pm 1.0/\pm 1.0$) and a safety classification of A1.

Addendum ¹						Status	Section/Brief Description ²
1992	1997	2001	2004	2007	2010		
						comments were received from the public review. SSPC 34 approved publication at the ASHRAE Winter Meeting on 2/7/05 (Orlando). StdC approval 6/30/05. ASHRAE BOD approval 6/30/05. ANSI approval 7/1/05. Published in the 2006 Supplement and incorporated in the 2007 edition.	
			s	Incorporated		Approved for first public review by SSPC 6/28/2004 (Nashville). First public review approved by SPLS 10/2/2004. The 30-day first public review period was held from 10/22/2004 through 11/21/2004 and was announced in the October 22, 2004 ASHRAE Standards Actions. No comments were received from the public review. SSPC 34 approved publication at the ASHRAE Winter Meeting on 2/7/05 (Orlando). StdC approval 6/30/05. ASHRAE BOD approval 6/30/05. ANSI approval 7/1/05. Published in the 2006 Supplement and incorporated in the 2007 edition.	Table 1: The proposed addendum adds a designation for R-227ea for 1,1,1,2,3,3,3-heptafluoropropane and a safety classification of A1.
			a	Incorporated		Approved for first public review by SSPC 34 on 2/7/05 (Orlando). First public review approved by SPLS on 4/19/05. The 30-day first public review period was held from 5/6/05 to 6/5/05 and was announced in the May 6, 2005 ASHRAE Standards Actions. One comment was received from the public review. The comment was resolved and the SSPC approved publication by letter ballot (ballot closed September 21, 2005). Approved for publication by Standards Committee and the ASHRAE BOD in January 2006. ANSI approval 4/10/06. Published in the 2006 Supplement and incorporated in the 2007 edition.	Table 2: This proposed addendum adds a designation of R-422B to the blend R-125/134a/600a (55.0/42.0/3.0) with tolerances of ($\pm 1.0/\pm 1.0/+0.1,-0.5$) and a safety classification of A1.
			b	Incorporated		Approved for first public review by SSPC 34 on 2/7/05 (Orlando). First public review approved by SPLS on 4/19/05. The 30-day first public review period was held from 5/6/05 to 6/5/05 and was announced in the May 6, 2005 ASHRAE Standards Actions. No comments were received. SSPC 34 approved publication at the ASHRAE	Table 2: This proposed addendum adds a designation of R-422C to the blend R-125/134a/600a (82.0/15.0/3.0) with tolerances of ($\pm 1.0/\pm 1.0/+0.1,-0.5$) and a safety classification of A1.

Addendum ¹						Status	Section/Brief Description ²
1992	1997	2001	2004	2007	2010		
						Annual Meeting on 6/27/05 (Denver). Approved for publication by Standards Committee and the ASHRAE BOD in January 2006. ANSI approval 4/10/06. Published in the 2006 Supplement and incorporated in the 2007 edition.	
			c	Incorporated		Approved for first public review by SSPC 34 on 2/7/05 (Orlando). First public review approved by SPLS on 4/19/05. The 30-day first public review period was held from 5/6/05 to 6/5/05 and was announced in the May 6, 2005 ASHRAE Standards Actions. No comments were received. SSPC 34 approved publication at the ASHRAE Annual Meeting on 6/27/05 (Denver). Approved for publication by Standards Committee and the ASHRAE BOD in January 2006. ANSI approval 4/10/06. Published in the 2006 Supplement and incorporated in the 2007 edition.	Table 2: This proposed addendum adds a designation of R-423A to the blend R-134a/227ea (52.5/47.5) with tolerances of ($\pm 1.0/\pm 1.0$) and a safety classification of A1.
			d	Incorporated		Approved for first public review by SSPC 34 on 2/7/05 (Orlando). First public review approved by SPLS on 6/24/05 and was held from September 23, 2005 to October 23, 2005. One commenter submitted three comments. The committee revised the draft addendum and approved a second (ISC) public review, which was held from September 22, 2006 to October 22, 2006. No comments were received. Approved for publication by Standards Committee on 1/27/07 and the ASHRAE BOD on 3/2/07. ANSI approval 3/3/07.	Section 8: This proposed addendum adds the requirement for refrigerant applications in electronic format in addition to the printed copies.
			e	Incorporated		Approved for first public review by SSPC 34 on 6/27/05 (Denver). First public review will be held from September 23, 2005 to October 23, 2005. No comments were received. Approved for publication by Standards Committee and the ASHRAE BOD in January 2006. ANSI approval 4/10/06. Published in the 2006 Supplement and incorporated in the 2007 edition.	This proposed addendum adds a designation of R-424A to the blend R-125/134a/600a/600/601a (50.5/47.0/0.9/1.0/0.6) with tolerances of ($\pm 1.0/\pm 1.0/+0.1,-0.2/+0.1,-0.2/+0.1,-0.2$) and a safety classification of A1.

Addendum ¹						Status	Section/Brief Description ²
1992	1997	2001	2004	2007	2010		
			f	Incorporated		Approved for first public review by SSPC 34 on 6/27/05 (Denver). First public review will be held from September 23, 2005 to October 23, 2005. No comments were received. Approved for publication by Standards Committee and the ASHRAE BOD in January 2006. ANSI approval 4/10/06. Published in the 2006 Supplement and incorporated in the 2007 edition.	This proposed addendum adds a designation of R-425A to the blend R-32/134a/227ea (18.5/69.5/12.0) with tolerances of ($\pm 0.5/\pm 0.5/\pm 0.5$) and a safety classification of A1.
			g	Incorporated		Approved for first public review by SSPC 34 on 6/27/05 (Denver). First public review approved by SPLS on 9/8/05, and was held from September 23, 2005 to November 7, 2005. Four comments were received from four commenters. Approved for publication by Standards Committee on June 24, 2006 and the ASHRAE BOD on June 29, 2006. ANSI approval July 27, 2006. Incorporated in the 2007 edition.	This proposed addendum adds a column to Table 1 and 2 titled "Toxicity Under Code Classification" with each refrigerant designated as highly toxic, toxic (as defined by the International Fire Code, Uniform Fire Code and OSHA) or neither (for refrigerants less toxic than defined above).
			h	Incorporated		Approved for publication public review (1 st public review) by SSPC 34 on January 23, 2006 (Chicago). First public review approved by SPLS on March 3, 2006 and was held from March 17, 2006 to April 16, 2006. Approved for publication by Standards Committee on June 24, 2006 and the ASHRAE BOD on June 29, 2006. ANSI approval June 30, 2006. Incorporated in the 2007 edition.	This proposed addendum adds a designation of R-422D to the blend R-125/134a/600a (65.1/35.5/3.4) with tolerances of ($+0.9,-1.1/\pm 1.0/+0.1,-0.4$) and a safety classification of A1.
			i	Incorporated		Approved for publication public review (1 st public review) by SSPC 34 on January 23, 2006 (Chicago). First public review approved by SPLS on March 3, 2006 and was held from March 17, 2006 to April 16, 2006. A typographical error in the composition necessitated a second (ISC) public review. The public review was approved by SPLS on 9/6/06 and was held from September 22, 2006 to October 22, 2006. No comments were received. Approved for publication by Standards Committee on 1/27/07 and the ASHRAE BOD on 3/2/07. ANSI approval 3/3/07. Incorporated in the 2007 edition.	This proposed addendum adds a designation of R-426A to the blend R-125/134a/600/601a (5.1/93.0/1.3/0.6) with tolerances of ($\pm 1.0/\pm 1.0/+0.1,-0.2,+0.1,-0.2$) and a safety classification of A1.

Addendum¹

Status

Section/Brief Description²

1992	1997	2001	2004	2007	2010		
			j	Incorporated		Approved for publication public review (1 st public review) by SSPC 34 at the June 2006 meeting (Quebec). First public review was approved by SPLS on 9/6/06 and was held from September 22, 2006 to October 22, 2006. No comments were received. Approved for publication by Standards Committee on 1/27/07 and the ASHRAE BOD on 3/2/07. ANSI approval 3/3/07. Incorporated in the 2007 edition.	This proposed addendum adds a designation of R-427A to the blend R-32/125/143a/134a (15.0/25.0/10.0/50.0) with tolerances of ($\pm 2.0/\pm 2.0/\pm 2.0/\pm 2.0$) and a safety classification of A1.
			l	Incorporated		Approved for publication public review (1 st public review) by SSPC 34 at the June 2006 meeting (Quebec). First public review was approved by SPLS on 9/6/06 and was held from September 22, 2006 to October 22, 2006. No comments were received. Approved for publication by Standards Committee on 1/27/07 and the ASHRAE BOD on 3/2/07. ANSI approval 3/3/07. Incorporated in the 2007 edition.	This proposed addendum adds a designation of R-428A to the blend R-125/143a/290/600a (77.5/20.0/0.6/1.9) with tolerances of ($\pm 1.0/\pm 1.0/+0.1,-0.2/+0.1,-0.2$) and a safety classification of A1.
			m	Incorporated		Approved for publication public review (1 st public review) by SSPC 34 at the June 2006 meeting (Quebec). First public review was approved by SPLS on 9/6/06 and was held from September 22, 2006 to November 6, 2006. No comments were received. Approved for publication by Standards Committee on 1/27/07 and the ASHRAE BOD on 3/2/07. ANSI approval 3/3/07. Incorporated in the 2007 edition.	This proposed addendum removes data element requirements that are not needed in determining the refrigerant designation or safety classifications.
			t	Incorporated		Approved for publication public review (1 st public review) by SSPC 34 at the June 2006 meeting (Quebec). First public review was approved by SPLS on 9/6/06 and was held from September 22, 2006 to November 6, 2006. No comments were received. Approved for publication by Standards Committee on 1/27/07 and the ASHRAE BOD on 3/2/07. ANSI approval 3/3/07. Incorporated in the 2007 edition.	This proposed addendum adds an informative appendix containing refrigerant data removed from the standard by Addendum 34u-2004 and bubble/dew points for azeotropic blends.

Addendum¹

Status

Section/Brief Description²

1992	1997	2001	2004	2007	2010		
			v	Incorporated		Approved for publication public review (1 st public review) by SSPC 34 at the June 2006 meeting (Quebec). First public review was approved by SPLS on 9/6/06 and was held from September 22, 2006 to November 6, 2006. No comments were received. Approved for publication by Standards Committee on 1/27/07 and the ASHRAE BOD on 3/2/07. ANSI approval 3/27/07. Incorporated in the 2007 edition.	This proposed addendum updates Addendum 34u-2004 text and tables based on an increased ODL from 69,100 ppm to 140,000 ppm, increased cardiac sensitization default from 0 to 1000 ppm, new toxicity information for R-22, 32 and 227ea, new LFL values, and addition of new refrigerants.
			w	Incorporated		Approved for publication public review (1 st public review) by SSPC 34 at the June 2006 meeting (Quebec). First public review was approved by SPLS on 9/6/06 and was held from September 22, 2006 to November 6, 2006. No comments were received. Approved for publication by Standards Committee on 1/27/07 and the ASHRAE BOD on 3/2/07. ANSI approval 3/27/07. Incorporated in the 2007 edition.	This proposed addendum adds an informative appendix containing toxicity values for single-compound refrigerants.
				a	Incorporated	Approved for a 30-day publication public review (1 st public review) by SSPC 34 at the January 2007 meeting (Dallas). First public review was approved by SPLS on 3/2/07 and commenced on March 16, 2007 – April 15, 2007. No comments were received. Approved for publication by Standards Committee on 6/23/07, Tech Council on 6/27/07, and BOD on 6/27/07. ANSI approval 7/5/07. Published on the ASHRAE website.	This addendum adds a designation of R-429A to the blend R-E170/152a/600a (60.0/10.0/30.0) with composition tolerances of ($\pm 1.0/\pm 1.0/\pm 1.0$), a safety classification of A3 and a RCL of 6,300 ppm, 13 g/m ³ , 0.81 lb/Mcf.
				b	Incorporated	Approved for a 30-day publication public review (1 st public review) by SSPC 34 at the January 2007 meeting (Dallas). First public review was approved by SPLS on 3/2/07 and commenced on March 16, 2007 – April 15, 2007. No comments were received. Approved for publication by Standards Committee on 6/23/07, Tech Council on 6/27/07, and BOD on 6/27/07. ANSI approval 7/5/07. Published on the ASHRAE website.	This addendum adds a designation of R-430A to the blend R-152a/600a (76.0/24.0) with composition tolerances of ($\pm 1.0/\pm 1.0$), a safety classification of A3 and a RCL of 8,000 ppm, 21 g/m ³ , 1.3 lb/Mcf.
				c	Incorporated	Approved for a 30-day publication public review (1 st public review) by SSPC 34 at the January 2007 meeting (Dallas). First public review was approved by SPLS on 3/2/07 and commenced on March 16, 2007 – April 15, 2007. No comments were received. Approved for	This addendum adds a designation of R-431A to the blend R-290/152a (71.0/29.0) with composition tolerances of ($\pm 1.0/\pm 1.0$), a safety classification of A3 and a RCL of 5,500 ppm, 11 g/m ³ , 0.69 lb/Mcf.

Addendum¹

Status

Section/Brief Description²

1992	1997	2001	2004	2007	2010			
							publication by Standards Committee on 6/23/07, Tech Council on 6/27/07, and BOD on 6/27/07. ANSI approval 7/5/07. Published on the ASHRAE website.	
					d	Incorporated	Approved for a 30-day publication public review (1 st public review) by SSPC 34 at the January 2007 meeting (Dallas). First public review was approved by SPLS on 3/2/07 and commenced on March 16, 2007 – April 15, 2007. No comments were received. Approved for publication by Standards Committee on 6/23/07, Tech Council on 6/27/07, and BOD on 6/27/07. ANSI approval 7/5/07. Published on the ASHRAE website.	This addendum adds a designation of R-432A to the blend R-1270/E170 (80.0/20.0) with composition tolerances of ($\pm 1.0/\pm 1.0$), a safety classification of A3 and a RCL of 1,200 ppm, 2.1 g/m ³ , 0.13 lb/Mcf.
					e	Incorporated	Approved for a 30-day publication public review (1 st public review) by SSPC 34 at the January 2007 meeting (Dallas). First public review was approved by SPLS on 3/2/07 and commenced on March 16, 2007 – April 15, 2007. No comments were received. Approved for publication by Standards Committee on 6/23/07, Tech Council on 6/27/07, and BOD on 6/27/07. ANSI approval 7/5/07. Published on the ASHRAE website.	This addendum adds a designation of R-433A to the blend R-1270/290 (30.0/70.0) with composition tolerances of ($\pm 1.0/\pm 1.0$), a safety classification of A3 and a RCL of 3,100 ppm, 5.5 g/m ³ , 0.34 lb/Mcf.
					f	Incorporated	Approved for a 30-day publication public review (1 st public review) by SSPC 34 at the January 2007 meeting (Dallas). First public review was approved by SPLS on 3/2/07 and commenced on March 16, 2007 – April 15, 2007. No comments were received. Approved for publication by Standards Committee on 6/23/07, Tech Council on 6/27/07, and BOD on 6/27/07. ANSI approval 7/5/07. Published on the ASHRAE website.	This addendum updates the RCL value for R-C318 in Table 1 to 80,000 ppm and adds RCL values for R-427A and R-428A in Table 2.
					g	Incorporated	Approved for a 45-day publication public review (1 st public review) by SSPC 34 at the January 2007 meeting (Dallas). First public review was approved by SPLS on 3/2/07 and commenced on March 16, 2007 – April 30, 2007. No comments were received. Approved for publication by Standards Committee on 6/23/07, Tech Council on 6/27/07 and BOD on 6/27/07. ANSI approval 7/5/07. Published on the ASHRAE website.	This addendum modifies the method of calculating the heat of combustion to more closely represent what actually occurs. It also adds an informative appendix with an example calculation.
					h	Incorporated	Approved for a 45-day publication public review (1 st	This addendum adds an informative

Addendum¹

Status

Section/Brief Description²

1992	1997	2001	2004	2007	2010			
							public review) by SSPC 34 at the January 2007 meeting (Dallas). First public review was approved by SPLS on 3/2/07 and commenced on March 16, 2007 – April 30, 2007. No comments were received. Approved for publication by Standards Committee on 6/23/07, Tech Council on 6/27/07, and BOD on 6/27/07. ANSI approval 7/5/07. Published on the ASHRAE website.	appendix showing an example of the calculation of the ATEL and RCL for a refrigerant blend. Section 7.2 is also modified to refer the reader to the informative appendix.
				i	Incorporated	Approved for a 30-day publication public review (1 st public review) by SSPC 34 at the June 2007 meeting (Long Beach, CA). First public review was approved by SPLS on 8/29/07 and commenced on September 14, 2007 – October 14, 2007. No comments were received. Approved for publication by Standards Committee on 1/19/08 and BOD on 1/23/08. ANSI approval 1/24/08. Published on the ASHRAE website.	This addendum adds a designation of R-434A to the blend R125/143a/134a/600a (63.2/18.0/16.0/2.8) with composition tolerances of ($\pm 1.0/\pm 1.0/\pm 1.0+0.1-0.2$), a safety classification of A1 and a RCL of 73,000 ppm, 320 g/m ³ , 20 lb/Mcf and a code classification of neither highly toxic or toxic. It also updates Table D2 with the molecular mass, bubble point, and dew point data as provided in the application.	
				j	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the June 2007 meeting (Long Beach, CA). First public review was approved by SPLS on 8/29/07 and commenced on September 14, 2007 – October 14, 2007. No comments were received. Approved for publication by Standards Committee on 1/19/08 and BOD on 1/23/08. ANSI approval 1/24/08. Published on the ASHRAE website.	This addendum adds data for R-601 to Table 1, adds R-601 to Table D1, and to Table E1 with underlying toxicity and flammability data as provided in the application, with the following exceptions: 1.LFL = 1.2 vol%, 2. The rat LC50 for isopentane shall be applied to n-pentane. A safety classification of A3.	
				k	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the June 2007 meeting (Long Beach, CA). First public review was approved by SPLS on 8/29/07 and commenced on September 14, 2007 – October 14, 2007. No comments were received. Approved for publication by Standards Committee on 1/19/08 and BOD on 1/23/08. ANSI approval 1/24/08. Published on the ASHRAE website.	This addendum adds to section 9.6.1 the following missing information to complete refrigerant applications: <ul style="list-style-type: none"> - g. anesthetic and Central Nervous System Effects - h. other Escape-Impairing Effects and Permanent Injury 	
				l	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the June 2007 meeting (Long Beach, CA). First public review was approved by SPLS on 8/29/07 and commenced on September 14, 2007 – October 14, 2007. No comments were received. Approved for	This proposed addendum revises clauses B2.4.1, B2.4.2 and B2.5 to clarify the requirements for fractionation analysis when applying for designation and safety classification of a refrigerant.	

Addendum¹

Status

Section/Brief Description²

1992	1997	2001	2004	2007	2010			
							publication by Standards Committee on 1/19/08 and BOD on 1/23/08. ANSI approval 2/27/08. Published on the ASHRAE website.	
					m	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the June 2007 meeting (Long Beach, CA). First public review was approved by Standards Committee and the BOD (TPS change) in January 2008 and was conducted from 3/21/08 to 4/21/08. No comments were received. Approved for publication by Standards Committee on 6/21/08 and BOD on 6/25/08. ANSI approval 6/25/08. Published on the ASHRAE website.	This addendum adds the refrigerant concentration limit (RCL) to the purpose and scope of Standard 34.
					n	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 2008 meeting (New York). First public review was approved by SPLS on 3/6/08 and was conducted from 3/21/08 to 4/21/08. No comments were received. Approved for publication by Standards Committee on 6/21/08 and BOD on 6/25/08. ANSI approval 6/25/08. Published on the ASHRAE website.	This addendum adds R-435A, a new zeotropic refrigerant blend, to Table 2.
					o	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 2008 meeting (New York). First public review was approved by SPLS on 3/6/08 and was conducted from 3/21/08 to 4/21/08. No comments were received. Approved for publication by Standards Committee on 6/21/08 and BOD on 6/25/08. ANSI approval 6/25/08. Published on the ASHRAE website.	This addendum adds R-510A, a new azeotropic refrigerant blend, to Table 2.
					p	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 2008 meeting (New York). First public review was approved by SPLS on 3/6/08 and was conducted from 3/21/08 to 4/21/08. No comments were received. Approved for publication by Standards Committee on 6/21/08 and BOD on 6/25/08. ANSI approval 6/25/08. Published on the ASHRAE website.	This addendum adds R-436A, a new zeotropic refrigerant blend, to Table 2.
					q	Incorporated	Approved for 30-day publication public review (1 st public	This addendum adds R-436B, a new

Addendum¹

Status

Section/Brief Description²

1992	1997	2001	2004	2007	2010		
							review) by SSPC 34 at the January 2008 meeting (New York). First public review was approved by SPLS on 3/6/08 and was conducted from 3/21/08 to 4/21/08. No comments were received. Approved for publication by Standards Committee on 6/21/08 and BOD on 6/25/08. ANSI approval 6/25/08. Published on the ASHRAE website.
				r	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 2008 meeting (New York). First public review was approved by SPLS on 3/6/08 and was conducted from 3/21/08 to 4/21/08. No comments were received. Approved for publication by Standards Committee on 6/21/08 and BOD on 6/25/08. ANSI approval 6/25/08. Published on the ASHRAE website.	zeotropic refrigerant blend, to Table 2.
				s	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 2008 meeting (New York). First public review was approved by SPLS on 3/6/08 and was conducted from 3/21/08 to 4/21/08. No comments were received. Approved for publication by Standards Committee on 6/21/08 and BOD on 6/25/08. ANSI approval 6/25/08. Published on the ASHRAE website.	This addendum adds R-437A, a new zeotropic refrigerant blend, to Table 2.
				t	Incorporated	Approved for 45-day publication public review (1 st public review) by SSPC 34 at the January 2008 meeting (New York). First public review was approved by SPLS on 3/6/08 and was conducted from 3/21/08 to 5/5/08. No comments were received. Approved for publication by Standards Committee on 6/21/08 and BOD on 6/25/08. ANSI approval 6/25/08. Published on the ASHRAE website.	This addendum revises the oxygen deprivation limit (ODL) adjustment for altitude by adding an intermediate adjustment at 1500m.
							This addendum adds occupational exposure limits (OEL) for the refrigerants to Tables 1 and 2. Refrigerants 435A, 510A, 436A, 436B, and 437A are included in this public review; however, the addition of these refrigerants to the standard is currently out for public review in separate addenda. The addition of the OEL values for these refrigerants is dependent on subsequent approval for publication of proposed addenda 34n, o, p, q, and r, respectively. Composition tolerances for these refrigerants can be found in the appropriate public review draft.

Addendum ¹						Status	Section/Brief Description ²
1992	1997	2001	2004	2007	2010		
				u	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 2008 meeting (New York). First public review was approved by SPLS on 3/6/08 and was conducted from 3/21/08 to 4/21/08. No comments were received. Approved for publication by Standards Committee on 6/21/08 and BOD on 6/25/08. ANSI approval 6/25/08. Published on the ASHRAE website.	This addendum revises clause 6.1.2 to clarify the intent and adds a definition of OEL to section 3.
				v	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 2008 meeting (New York). First public review was approved by SPLS on 3/6/08 and was conducted from 3/21/08 to 4/21/08. No comments were received. Approved for publication by Standards Committee on 6/21/08 and BOD on 6/25/08. ANSI approval 6/25/08. Published on the ASHRAE website.	This addendum modifies data for R-600 in Table E1 by adding an anesthetic NOEL of 130,000 and changing "Other" to 10,000.
				w	Incorporated	Approved for 45-day publication public review (1 st public review) by SSPC 34 at the June 23, 2008 meeting (Salt Lake City, Utah) and by subsequent letter ballot. First public review was held from 9/12/08 to 10/27/08. One comment was received. Approved for publication by Standards Committee on 6/20/09 and BOD on 6/24/09. An appeal was received and denied. Approved by ANSI on 11/18/09.	This addendum adds new refrigerant 1234yf to Table 1 and Table D1. Publication is contingent on approval of BSR/ASHRAE Addendum 34z-2007, which adds nomenclature rules for halogenated propenes to the standard.
				x	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the June 23, 2008 meeting (Salt Lake City, Utah) and by subsequent letter ballot. First public review was held from 9/12/08 to 10/12/08. No comments were received. Approved for publication by Standards Committee on 1/24/09 and BOD on 1/28/09. ANSI approval 1/29/09. Published on the ASHRAE website.	This addendum adds new refrigerant R-433B to Table 2 and Table D2.
				y	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the June 23, 2008 meeting (Salt Lake City, Utah) and by subsequent letter ballot. First public review was held from 9/12/08 to 10/12/08. No comments were received. Approved for publication by	This addendum adds new refrigerant R-433C to Table 2 and Table D2.

Addendum¹

Status

Section/Brief Description²

1992	1997	2001	2004	2007	2010			
							Standards Committee on 1/24/09 and BOD on 1/28/09. ANSI approval 1/29/09. Published on the ASHRAE website.	
					z	Incorporated	Approved for 45-day publication public review (1 st public review) by SSPC 34 at the June 23, 2008 meeting (Salt Lake City, Utah) and by subsequent letter ballot. First public review was held from 9/12/08 to 10/27/08. Five comments were received from two commenters. A second public review (ISC) was held from 9/11/09 to 10/11/09. No comments were received. Approved for publication by Standards Committee on 1/23/10 and BOD on 1/27/10. ANSI approval 1/28/10. Published on the ASHRAE website.	This addendum extends the rules for numbering refrigerants to include ethene and propene based refrigerants. The rules being added are consistent with industry and academic nomenclature conventions.
					aa	Incorporated	Approved for 45-day publication public review (1 st public review) by SSPC 34 at the June 23, 2008 meeting (Salt Lake City, Utah) and by subsequent letter ballot. First public review was held from 9/12/08 to 10/27/08. No comments were received. Approved for publication by Standards Committee on 1/24/09 and BOD on 1/28/09. ANSI approval 1/29/09. Published on the ASHRAE website.	This addendum extends the rules for numbering refrigerants to include butane and butene based refrigerants. The rules being added are consistent with industry and academic nomenclature conventions.
					ab	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the June 23, 2008 meeting (Salt Lake City, Utah) and by subsequent letter ballot. First public review was held from 9/12/08 to 10/12/08. No comments were received. Approved for publication by Standards Committee on 1/24/09 and BOD on 1/28/09. ANSI approval 1/29/09. Published on the ASHRAE website.	This addendum modifies the chemical names for R-E170, R-600a, R-601a, R-610, R-630, and R-631 in Table 1 to conform to IUPAC nomenclature.
					ac	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the June 23, 2008 meeting (Salt Lake City, Utah) and by subsequent letter ballot. First public review was held from 9/12/08 to 10/12/08. No comments were received. Approved for publication by Standards Committee on 1/24/09 and BOD on 1/28/09. ANSI approval 1/29/09. Published on the ASHRAE website.	This addendum modifies the requirements for submitting compact discs and hard copies of refrigerant applications (clause 9.9.5).

Addendum¹

Status

Section/Brief Description²

1992	1997	2001	2004	2007	2010			
					ad	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the June 23, 2008 meeting (Salt Lake City, Utah) and by subsequent letter ballot. First public review was held from 9/12/08 to 10/12/08. No comments were received. Approved for publication by Standards Committee on 1/24/09 and BOD on 1/28/09. ANSI approval 1/29/09. Published on the ASHRAE website.	This addendum modifies the data requirements for determining the anesthetic or central nervous system effects of a refrigerant (clause 7.1.1.c).
					ae	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the June 23, 2008 meeting (Salt Lake City, Utah) and by subsequent letter ballot. First public review was held from 9/12/08 to 10/12/08. No comments were received. Approved for publication by Standards Committee on 1/24/09 and BOD on 1/28/09. ANSI approval 1/29/09. Published on the ASHRAE website.	This addendum specifies the temperature for leak/recharge testing to be consistent the original intent of the committee (clause B2.5). Note that B2.5 was previously modified in 341-2007.
					af	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 26, 2009 meeting (Chicago) and by subsequent letter ballot. First public review was held from 3/20/09 to 4/19/09. No comments were received. Approved for publication by Standards Committee on 6/20/09 and BOD on 6/24/09. ANSI approval 6/25/09. Published on the ASHRAE website.	This addendum adds new refrigerant 438A to Table 2 and Table D2.
					ag	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 26, 2009 meeting (Chicago) and by subsequent letter ballot. First public review was held from 3/20/09 to 4/19/09. No comments were received. Approved for publication by Standards Committee on 6/20/09 and BOD on 6/24/09. ANSI approval 6/25/09. Published on the ASHRAE website.	This addendum changes the safety classification of R-403A from A1 to A2.
					ah	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the June 22, 2009 meeting (Louisville) and by subsequent letter ballot. First public review was held from 9/11/09 to 10/11/09. No comments were received. Approved for publication by Standards Committee on 1/23/10 and BOD on 1/27/10. ANSI approval 1/28/10. Published on the ASHRAE website.	This addendum modifies sections 5.2 and 5.2.4 to clarify the intent of SSPC 34 that composition designating prefixes may be appropriate for non-technical public and regulatory communications addressing compounds having environmental impact, not limited to ozone depletion.

Addendum¹

Status

Section/Brief Description²

1992	1997	2001	2004	2007	2010			
					ai	Incorporated	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the June 22, 2009 meeting (Louisville) and by subsequent letter ballot. First public review will be held from 9/11/09 to 10/11/09. One comment was received and resolved. Approved for publication by Standards Committee on 1/23/10 and BOD on 1/27/10. ANSI approval 1/28/10. Published on the ASHRAE website.	This addendum modifies sections 9.1.2 to allow for an application fee and indicates that the applicant is required to pay for the cost of distributing copies of the application to members of the project committee.
					aj	Incorporated	Approved for 45-day publication public review (1 st public review) by SSPC 34 at the June 22, 2009 meeting (Louisville) and by subsequent letter ballot. First public review was held from 9/11/09 to 10/26/09. No comments were received. Approved for publication by Standards Committee on 1/23/10 and BOD on 1/27/10. ANSI approval 1/28/10. Published on the ASHRAE website.	This addendum changes the required testing temperatures for flammability. All tests previously required at 100 °C are replaced by testing at 60 °C.
					ak	Incorporated	Approved for 45-day publication public review (1 st public review) by SSPC 34 at the June 22, 2009 meeting (Louisville) and by subsequent letter ballot. First public review was held from 9/11/09 to 10/26/09. No comments were received. Approved for publication by Standards Committee on 1/23/10 and BOD on 1/27/10. ANSI approval 2/24/10. Published on the ASHRAE website.	This addendum adds an optional 2L subclass to the existing Class 2 flammability classification, signifying class 2 refrigerants with a burning velocity less than or equal to 10 cm/s.
					a		Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 24, 2010 meeting (Orlando). First public review was held from 3/26/10 to 4/25/10. No comments were received. Approved for publication by Standards Committee on 6/23/10 and BOD on 6/30/10. ANSI approval 7/1/10. Published on the ASHRAE website.	This addendum adds new refrigerant 407F [blend of R-32/125/134a (30.0/30.0/40.0 mass%)] to Table 2 and Table D2.
					b		Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 24, 2010 meeting (Orlando). First public review was held from 3/26/10 to 4/25/10. No comments were received. Approved for publication by Standards Committee on 6/23/10 and BOD on 6/30/10. ANSI approval 7/1/10. Published on the ASHRAE website.	This addendum adds new refrigerant 417B [blend of R-125/134a/600 (79.0/18.3/2.7 mass%)] to Table 2 and Table D2
					c		Approved for 30-day publication public review (1 st public	This addendum changes the occupational

Addendum ¹						Status	Section/Brief Description ²
1992	1997	2001	2004	2007	2010		
						review) by SSPC 34 at the January 24, 2010 meeting (Orlando). First public review was held from 3/26/10 to 4/25/10. Two comments from one commenter were received; as of 4/26/11 the comments are unresolved. Approved for publication by Standards Committee on 6/25/11 and BOD on 6/29/11. ANSI approval 7/27/11. To be published on the ASHRAE website.	exposure limit (OEL), expressed as ppm (v/v), for R-1234yf from 400 to 500 to be consistent with the 2009 Workplace Environmental Exposure Limit (WEEL) established by the American Industrial Hygiene Association (AIHA).
					d	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 24, 2010 meeting (Orlando). First public review was held from 3/26/10 to 4/25/10. No comments were received. Approved for publication by Standards Committee on 6/23/10 and BOD on 6/30/10. ANSI approval 7/1/10. Published on the ASHRAE website.	This addendum modifies the language in 6.1.2, Toxicity Classification, to clarify the intent.
					e	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the June 28, 2010 meeting (Albuquerque). First public review was held from 9/10/10 to 10/10/10. No comments were received. Approved for publication by Standards Committee on 1/29/11 and BOD on 2/2/11. ANSI approval 2/3/11. Published on the ASHRAE website.	This addendum adds 439A, a new zeotropic refrigerant blend, to Table 2 and Table D2.
					f	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the June 28, 2010 meeting (Albuquerque). First public review was held from 9/10/10 to 10/10/10. No comments were received. Approved for publication by Standards Committee on 1/29/11 and BOD on 2/2/11. ANSI approval 2/3/11. Published on the ASHRAE website.	This addendum adds 440A, a new zeotropic refrigerant blend, to Table 2 and Table D2.
					g	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the June 28, 2010 meeting (Albuquerque). First public review was held from 9/10/10 to 10/10/10. No comments were received. Approved for publication by Standards Committee on 1/29/11 and BOD on 2/2/11. ANSI approval 2/3/11. Published on the ASHRAE website.	This addendum adds 441A, a new zeotropic refrigerant blend, to Table 2 and Table D2.
					h	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the June 28, 2010 meeting	This addendum changes the flammability safety classifications of refrigerants 32,

Addendum ¹						Status	Section/Brief Description ²
1992	1997	2001	2004	2007	2010		
						(Albuquerque). First public review was held from 9/10/10 to 10/10/10. No comments were received. Approved for publication by Standards Committee on 1/29/11 and BOD on 2/2/11. ANSI approval 2/3/11. Published on the ASHRAE website.	143a, 717, and 1234yf in Table 1 from Class 2 to its Subclass 2L based on the optional burning velocity measurement.
					i	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 31, 2011 meeting (Las Vegas). First public review was held from 5/6/11 to 6/5/11. No comments were received. Approved for publication by Standards Committee on 6/25/11 and BOD on 6/29/11. ANSI approval 6/30/11. Published on the ASHRAE website.	This addendum adds new refrigerant 1234ze(E) to Table 1 and Table D1.
					j	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 31, 2011 meeting (Las Vegas). First public review was held from 5/6/11 to 6/5/11. No comments were received. Approved for publication by Standards Committee on 6/25/11 and BOD on 6/29/11. ANSI approval 6/30/11. Published on the ASHRAE website.	This addendum adds new azeotropic refrigerant 511A to Table 2 and Table D2.
					k	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 31, 2011 meeting (Las Vegas). First public review was held from 5/6/11 to 6/5/11. No comments were received. Approved for publication by Standards Committee on 6/25/11 and BOD on 6/29/11. ANSI approval 6/30/11. Published on the ASHRAE website.	This addendum deletes the provisional status of RCL values for refrigerants 14, 115, 170, C318, 1270, 405A, 416A, 417A, 424A, 426A, and 504 and deletes footnote d in Table 1 and footnote e in Table 2.
					l	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 31, 2011 meeting (Las Vegas). First public review was held from 5/6/11 to 6/5/11. No comments were received. Approved for publication by Standards Committee on 6/25/11 and BOD on 6/29/11. ANSI approval 6/30/11. Published on the ASHRAE website.	This addendum changes the cardiac sensitization NOEL from 200,000 ppm to 350,000 ppm and deletes the LOEL value of 250,000 ppm for R-32 in Table E1. The bases for these changes are more recent acceptable GLP methodology. RCL values for refrigerants containing R-32 are subsequently changed in Table 2.
					m	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 31, 2011 meeting (Las Vegas). First public review was held from 5/6/11 to	This addendum adds an informative note regarding availability of an application template to clause 9, Application

Addendum ¹						Status	Section/Brief Description ²
1992	1997	2001	2004	2007	2010		
						6/5/11. Three comments from one commenter were received.	Instructions.
					n	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 31, 2011 meeting (Las Vegas). First public review was held from 5/6/11 to 6/5/11. No comments were received. Approved for publication by Standards Committee on 6/25/11 and BOD on 6/29/11. ANSI approval 6/30/11. Published on the ASHRAE website.	This addendum adds “pressure at the critical point” to subclauses 9.5.2.1, 9.5.2.2, and 9.5.2.3 and modifies subclause 9.5.2.5.
					o	Approved for 30-day publication public review (1 st public review) by SSPC 34 at the January 31, 2011 meeting (Las Vegas). First public review was held from 5/6/11 to 6/5/11. No comments were received. Approved for publication by Standards Committee on 6/25/11 and BOD on 6/29/11. ANSI approval 6/30/11. Published on the ASHRAE website.	This addendum clarifies the requirements of clause B1, Flammability Testing.

¹ PRD = Public Review Draft; TBD = To Be Determined

² These descriptions may not be complete and are provided for information only.