



Designation: D6541 – 21

Standard Specification for HFC-236fa, 1,1,1,3,3,3–Hexafluoropropane, (CF₃CH₂CF₃)¹

This standard is issued under the fixed designation D6541; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reappraisal. A superscript epsilon (ε) indicates an editorial change since the last revision or reappraisal.

1. Scope

1.1 This specification covers the requirements for HFC-236fa as a fire-fighting medium.

1.2 This specification does not address the fire-fighting equipment or hardware that employs HFC-236fa or the conditions of employing such equipment (for example, hand-helds, fixed installations, and so forth).

1.3 This specification does not address the storage or transportation of HFC-236fa. Storage, handling, and transportation issues are addressed in Practice D6427.

1.4 The values stated in SI units are to be regarded as standard. The values given in parentheses after SI units are provided for information only and are not considered standard.

1.5 The following safety hazards caveat pertains to the test methods portion, Section 6, of this specification. *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.* A specific warning statement is given in 4.3.

1.6 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

D6427 Practice for Handling, Transportation, and Storage of HFC-236fa, 1,1,1,3,3,3–Hexafluoropropane (CF₃CH₂CF₃)

¹ This specification is under the jurisdiction of ASTM Committee D26 on Halogenated Organic Solvents and Fire Extinguishing Agents and is the direct responsibility of Subcommittee D26.09 on Fire Extinguishing Agents.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

D6806 Practice for Analysis of Halogenated Organic Solvents and Their Admixtures by Gas Chromatography

2.2 U.S. Government Standards:³

49 CFR Part 172 Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, Training Requirements, and Security Plans

49 CFR Part 172.101 Purpose and Use of Hazardous Materials Table

2.3 AHRI Standard:⁴

2008 Appendix C for Analytical Procedures for AHRI Standard 700-2014

2.4 ASHRAE Standard:⁵

ASHRAE Standard 34 Designation and Safety Classification of Refrigerants

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 *halogenated hydrocarbon, n* (see *Discussion*)—saturated hydrocarbons in which one or more of the hydrogen atoms have been replaced by atoms of the halogen series (fluorine, chlorine, bromine, and iodine). It is convention to prefix the number with an abbreviation of the compound:

CFC	=	chlorofluorocarbon
HCFC	=	hydrochlorofluorocarbon
HFC	=	hydrofluorocarbon
FC	=	fluorocarbon
R	=	refrigerant

Discussion—The halogenated compound coding terminology system provides a convenient means to reference halogenated hydrocarbons (see ASHRAE 34).

3.1.1.1 By definition, the right-most digit of the numbering system is the number of fluorine atoms.

³ Code of Federal Regulations (CFR) documents are available from U.S. Government Publishing Office (GPO), 732 N. Capitol St., NW, Washington, DC 20401, <http://www.gpo.gov>.

⁴ Available from Air-Conditioning, Heating, and Refrigeration Institute (AHRI), 2311 Wilson Blvd., Suite 400, Arlington, VA 22201, <http://www.ahrinet.org>.

⁵ Available from American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. (ASHRAE), 1791 Tullie Circle, NE, Atlanta, GA 30329, <http://www.ashrae.org>.