



Designation: D7122 – 21

Standard Specification for HCFC Blend B (CF₃CCl₂H, Ar, and CF₄)¹

This standard is issued under the fixed designation D7122; 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 requirements for HCFC Blend B as a fire-fighting medium.

1.2 This specification does not address the fire-fighting equipment or hardware that employs HCFC Blend B or the conditions of employing such equipment (for example, handhelds, fixed installations, etc.).

1.3 This specification does not address the storage or transportation of HCFC Blend B. Storage, handling, and transportation issues are addressed in Practice D7123.

1.4 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.5 The following safety hazards caveat pertains only 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.* Specific hazards statements are given in 4.5.

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

D6806 Practice for Analysis of Halogenated Organic Sol-

vents and Their Admixtures by Gas Chromatography
D7123 Practice for Handling, Transportation, and Storage of
HCFC Blend B (CF₃CCl₂H, Ar, and CF₄)

2.2 U.S. Government Standards:³

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

49 CFR Part 172.101 Purpose and Use of Hazardous Mate-
rials Table

2.3 AHRI Standard:⁴

2008 Appendix C for Analytical Procedures for AHRI Stan-
dard 700-2014

2.4 ASHRAE Standard:⁵

ASHRAE 34 Designation and Safety Classification of Re-
frigerants

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 *HCFC, n*—hydrochlorofluorocarbon; a chemical com-
pound in which the compound molecule is comprised exclu-
sively of hydrogen, chlorine, fluorine and carbon atoms.

3.1.2 *HCFC Blend B, n*—tertiary blend comprised primarily
of HCFC-123 (2,2-dichloro-1,1,1-trifluoroethane); a com-
pound used to inert, extinguish, or suppress a fire or explosion
hazard. The blend also contains argon and tetrafluoromethane.

3.1.2.1 *Discussion*—The terminology system for fluorine-
containing compounds (described in detail in ASHRAE Stan-
dard 34) provides a convenient means to reference the structure
of individual compounds. By definition, the first digit of the
numbering system represents one less than the number of
carbon atoms in the compound molecule; the second digit, one
more than the number of hydrogen atoms in the compound
molecule; and the third digit, the number of fluorine atoms in
the compound molecule. Unaccounted for valence require-
ments are assumed to be chlorine atoms. For example, the

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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.

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

⁴ Available from Air-Conditioning, Heating, and Refrigeration Institute, 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>.