



Standard Practice for Handling, Transportation, and Storage of HFC Blend B (CH₂FCF₃, CHF₂CF₃, and CO₂)¹

This standard is issued under the fixed designation D7326; 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 reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice covers guidance and direction to suppliers, reclaimers, purchasers, and users in the handling, transportation, and storage of HFC Blend B.

1.2 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.

1.3 *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 and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*²

D7327 Specification for HFC Blend B (CH₂FCF₃, CHF₂CF₃, and CO₂)

2.2 *CGA Standards:*³

C-1 Methods for Hydrostatic Testing of Compressed Gas Cylinders

C-6 Standards for Visual Inspection of Steel Compressed Gas Cylinders

C-7 Guide to Preparation of Precautionary Labeling and Marking of Compressed Gas Containers

P-1 Safe Handling of Compressed Gases in Containers

SB-1 Safety Bulletin: Hazards of Refilling Compressed Refrigerant (Halogenated Hydrocarbon) Gas Cylinders

SB-5 Safety Bulletin: Hazards of Reusing Disposable Refrigerant (Halogenated Hydrocarbon) Gas Cylinders

SB-18 Safety Bulletin: Use of Refrigerant (Halogenated Hydrocarbons) Recovery Cylinders

2.3 *U.S. Government Standards:*⁴

CFR Title 49, Part 172, Subpart D, U.S. Department of Transportation (DOT), Marking Requirements of Packaging for Transportation

CFR Title 49, Part 172.101, U.S. DOT, Tables of Hazardous Materials and Special Provisions

CFR Title 49, Part 173, U.S. DOT, Shippers-General Requirements for Shipping and Packagings

CFR Title 49, Part 178, U.S. DOT, Specifications for Packagings

CFR Title 49, Part 180, U.S. DOT, Continuing Qualification and Maintenance of Packagings

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *containers*—storage vessels for HFC Blend B.

3.1.2 *cylinders*—containers of HFC Blend B.

3.1.3 *HFC Blend B*—tertiary blend comprised of HFC-134a (1,1,1,2-tetrafluoroethane), HFC-125 (pentafluoroethane), and carbon dioxide (CO₂); a compound used to inert, extinguish, or suppress a fire or explosion hazard.

3.1.4 *insulated*—placed in an isolated situation to protect and prevent the transfer of damage.

4. Significance and Use

4.1 This practice provides requirements for the handling, transportation, and storage of HFC Blend B encountered in distribution through both commercial and military channels. It is intended to ensure that HFC Blend B is handled, transported, and stored in such a way that its physical property virtues are not degraded. Transport may be by various means, such as, but not limited to, highway, rail, water, and air.

5. Practice

5.1 To ensure safe handling, loading, unloading, storing, and transporting of material, personnel shall be trained in the

¹ This practice 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.

Current edition approved Sept. 1, 2012. Published October 2012. Originally approved in 2006. Last previous edition approved in 2006 as D7326-06^{ε1}. DOI: 10.1520/D7326-12.

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 Available from Compressed Gas Association. Online, www.cganet.com.

⁴ Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20036.