



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

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1. Scope

1.1 This practice covers guidance and direction to suppliers, purchasers, and users in the handling, transportation, and storage of HFC-236fa.

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

D6541 Specification for HFC-236fa, 1,1,1,3,3,3-Hexafluoropropane, (CF₃CH₂CF₃)

2.2 CGA Standards:³

C-1 Methods for Pressure Testing Compressed Gas Cylinders

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

C-7 Guide to Classification and Labeling of Compressed Gases

P-1 Standard for Safe Handling of Compressed Gases in Containers

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

SB-18 Use of Refrigerant (Halogenated Hydrocarbon) Recovery Cylinders

2.3 U.S. Government Standards:⁴

Code of Federal Regulations (CFR) Title 40, Part 82.106 Environmental Protection Agency, Warning Statement Requirements

CFR Title 49, Part 172 U.S. Department of Transportation (DOT), Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements

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 Packages

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 *containers, n*—storage vessel for HFC-236fa.

3.1.2 *cylinders, n*—containers of HFC-236fa.

3.1.3 *HFC-236fa, n*—1,1,1,3,3,3-hexafluoropropane, a compound used to inert or suppress a fire or explosion hazard.

3.1.4 *insulated, v*—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-236fa encountered in distribution through both commercial and military channels. It is intended to ensure that HFC-236fa is handled, transported, and stored in such a way its physical properties are not degraded. Transport may be by various means, such as, but not limited to, highway, rail, water, and air.

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.

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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 Available from Compressed Gas Association (CGA), 14501 George Carter Way, Suite 103, Chantilly, VA 20151, <http://www.cganet.com>.

⁴ Available from U.S. Government Publishing Office, 732 N. Capitol St., NW, Washington, DC 20401-0001, <http://www.gpo.gov>.