



Designation: D 5631 – 05

## Standard Practice for Handling, Transportation, and Storage of Halon 1301, Bromotrifluoromethane (CF<sub>3</sub>Br)<sup>1</sup>

This standard is issued under the fixed designation D 5631; 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, recyclers, reclaimers, purchasers, and users in the handling, transportation, and storage of Halon 1301.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are for information only.

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 to determine the applicability of regulatory limitations prior to use.*

### 2. Referenced Documents

2.1 *ASTM Standards:*<sup>2</sup>

D 5632 Specification for Halon 1301, Bromotrifluoromethane (CF<sub>3</sub>Br)

2.2 *CGA Standards:*<sup>3</sup>

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

S-1.1 Pressure Relief Device Standards— Part 1 – Cylinders for Compressed Gases

S-1.2 Pressure Relief Device Standards – Part 2 – Cargo and Portable Tanks for Compressed Gases

S-1.3 Pressure Relief Device Standards – Part 3 – Stationary Storage Containers for Compressed Gases

SB-1 Hazards of Refilling Compressed Refrigerant (Halo-

genated Hydrocarbon) Gas Cylinders

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

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

2.3 *U.S. Government Standards:*<sup>4</sup>

Code of Federal Regulations (CFR) Title 40, Part 82.106

Code of Federal Regulations (CFR) Title 49, Part 173, U.S. Department of Transportation (DOT) Specifications, Shippers-General Requirements for Shipping and Packagings

Code of Federal Regulations (CFR) Title 49, Part 178, U.S. DOT Specifications for Packagings

Code of Federal Regulations (CFR) Title 49, Part 180, U.S. DOT, Continuing Qualification and Maintenance of Packagings

2.4 *Other Documents:*

Safety Guide for Decommissioning Halon Systems, Volume 2 of the U.S. Environmental Protection Agency Outreach Report, Moving Towards a World Without Halon<sup>5</sup>

### 3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *containers*—storage vessel for Halon 1301.

3.1.2 *cylinders*—containers of Halon 1301.

3.1.3 *Halon 1301*—bromotrifluoromethane, a compound used to inert 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 Halon 1301 encountered in distribution through both commercial and military channels. It is intended to ensure that Halon 1301 is handled, transported, and stored in such a way that its physical property values are not degraded. Transport may be by various means, such as, but not limited to, highway, rail, water, and air.

<sup>1</sup> 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 Recycled Halon 1301.

Current edition approved June 1, 2005. Published July 2005. Originally approved in 1994. Last previous edition approved in 2000 as D 5631 – 00.

<sup>2</sup> 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.

<sup>3</sup> Available from the Compressed Gas Association.

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

<sup>5</sup> Available by means of the Internet: <http://www.halon.org/pdfs/intro.pdf>