

METRIC

A-A-58060A

20 July 2005

SUPERSEDING

A-A58060

3 September 1996

## COMMERCIAL ITEM DESCRIPTION

### FLUOROCARBON AND OTHER REFRIGERANTS

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

1. SCOPE. This commercial item description covers the requirements for fluorocarbon and other refrigerants.

2. CLASSIFICATION. The refrigerants shall conform to the following types:

Type	Chemical Name
R11	Trichloromonofluoromethane
R12	Dichlorodifluoromethane
R13	Monochlorotrifluoromethane
R22	Monochlorodifluoromethane
R23	Trifluoromethane
R32	Difluoromethane
R113	Trichlorotrifluoroethane
R114	Dichlorotetrafluoroethane
R116	Hexafluoroethane
R123	Dichlorotrifluoroethane
R124	Monochlorotetrafluoroethane
R125	Pentafluoroethane
R134a	Tetrafluoroethane
R143a	Trifluoroethane

Comments, suggestions, or questions on this document should be addressed to DET 3, WR-ALC/AFTT, 2430 C Street, Bldg 70, Area B, Wright-Patterson AFB OH 45433-7632 or e-mailed to [AFPET.AFTT@wpafb.af.mil](mailto:AFPET.AFTT@wpafb.af.mil). Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <http://assist.daps.dla.mil>.

AMSC N/A

FSC 6830

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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Type (continued)	Chemical Name (continued)
R236fa	Hexafluoropropane
R401A	Monochlorodifluoromethane (53%) ; Difluoroethane (13%) ; Monochlorotetrafluoroethane (34%)
R401B	Monochlorodifluoromethane (61%) ; Difluoroethane (11%) ; Monochlorotetrafluoroethane (28%)
R402A	Pentafluoroethane (60%) ; Propane (2%) ; Monochlorodifluoromethane (38%)
R402B	Pentafluoroethane (38%) ; Propane (2%) ; Monochlorodifluoromethane (60%)
R404A	Pentafluoroethane (44%) ; Trifluoroethane (52%) ; Tetrafluoroethane (4%)
R405A	Monochlorodifluoroethane (45%) ; Difluoroethane (7%) ; Monochlorodifluoroethane (5.5%) ; Octafluorocyclobutane (42.5%)
R406A	Monochlorodifluoromethane (55%) ; Isobutane (4%) ; Monochlorodifluoroethane (41%)
R407A	Difluoromethane (20%) ; Pentafluoroethane (40%) ; Tetrafluoroethane (40%)
R407B	Difluoromethane (10%) ; Pentafluoroethane (70%) ; Tetrafluoroethane (20%)
R407C	Difluoromethane (23%) ; Pentafluoroethane (25%) ; Tetrafluoroethane (52%)
R408A	Pentafluoroethane (7%) ; Trifluoroethane (46%) ; Monochlorodifluoromethane (47%)
R409A	Monochlorodifluoromethane (60%) ; Monochlorotetrafluoroethane (25%) ; Monochlorodifluoroethane (15%)
R410A	Difluoromethane (50%) ; Pentafluoroethane (50%) ;
R410B	Difluoromethane (45%) ; Pentafluoroethane (55%)
R411A	Propylene (1.5%) ; Monochlorodifluoromethane (87.5%) ; Difluoroethane (11%)
R411B	Propylene (3%) ; Monochlorodifluoromethane (94%) ; Difluoroethane (3%)
R412A	Monochlorodifluoromethane (70%) ; Octafluoropropane (5%) ; Monochlorodifluoroethane (25%)
R500	Dichlorodifluoromethane (74%) ; Difluoroethane (26%)
R502	Monochlorodifluoromethane (49%) ; Monochloropentafluoroethane (51%)
R503	Trifluoromethane (40%) ; Monochlorotrifluoromethane (60%)
R507	Pentafluoroethane (50%) ; Trifluoroethane (50%)
R508A	Trifluoromethane (39%) ; Hexafluoroethane (61%)
R509A	Monochlorodifluoromethane (44%) ; Octafluoropropane (56%)

3. SALIENT CHARACTERISTICS. Refrigerants will conform to Air-Conditioning and Refrigeration Institute (ARI) Standard 700, Specifications for Fluorocarbon and Other Refrigerants, when tested according to Appendix C to ARI Standard 700, Analytical Procedures for ARI Standard 700.

4. REGULATORY REQUIREMENTS. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR). Note that recovered materials will require purification to meet the requirements of ARI Standard 700.

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5. **PRODUCT CONFORMANCE.** The products provided shall meet the salient characteristics of this Commercial Item Description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial marketplace. The government reserves the right to require proof of such conformance.

6. **PACKAGING.**

6.1 Compressed gas cylinders. The specific use of any given cylinder for the packaging of products may dictate special cylinder design and construction requirements. For this reason, all cylinders used for the packaging of products shall conform to any and all special restrictions to cylinder design and manufacturing techniques imposed by the procuring activity.

6.1.1 Reusable cylinders and valves. Unless otherwise specified herein, the refrigerants shall be contained in Government-furnished cylinders conforming to Title 49 of the Code of Federal Regulations. When specified (see section 7), cylinders and valves shall be furnished by the contractor and, for military users, shall conform to A-A-59666 and MIL-DTL-2/22, respectively. When specified (see section 7), the refrigerants shall be contained in contractor-owned, DOT-approved containers with valves with outlet connection No. 660.

6.1.2 Disposable cylinders. When specified (see section 7), the contractor shall furnish disposable containers of the capacity as specified conforming to DOT Specification 39.

6.1.3 Cylinder maintenance. The contractor shall maintain and fill Government furnished cylinders according to MIL-STD-1411.

6.2 Drums (types R11, R113, and R123). These refrigerants shall be shipped in DOT approved containers. When specified (see section 7), drums conforming to UN type containers according to Title 49, Subpart L, shall be used.

7. **NOTES.**

7.1 Intended use. Refrigerants covered by this specification are intended for use in refrigeration and air conditioning units; however, some may be used as nonpolar heat transfer and electronic isolation media.

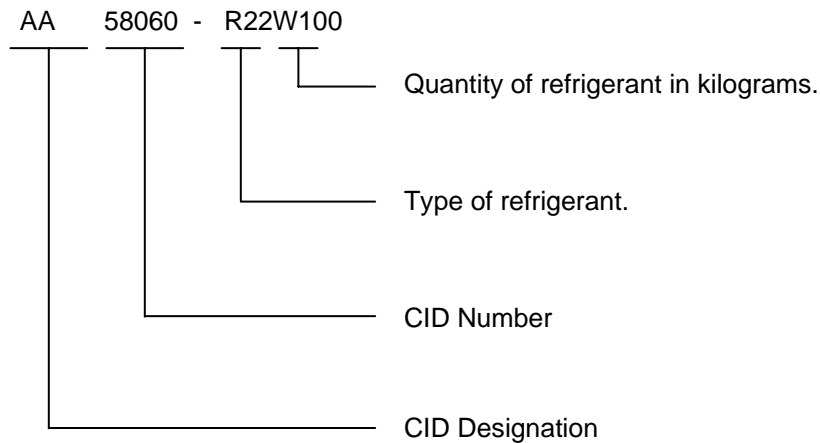
7.2 Ordering data. Purchasers should select the preferred options permitted herein and include the following information in procurement documents:

- a. Title, number, and date of this Commercial Item Description.
- b. Type of refrigerant required (section 2).
- c. When the contractor shall furnish Government-approved cylinders (section 6.1.1).
- d. When the contractor shall furnish DOT-approved containers (section 6.1.2).
- e. When the contractor shall provide contractor-owned cylinders (section 6.1.1).
- f. When cylinders conforming to DOT specification 39 are required (section 6.1.2).
- g. When drums are required (section 6.2).

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7.3 Part or identification number. The following part or identification numbering procedure is for government purposes and does not constitute a requirement for the contractor.

This example describes a part numbering system for CID A-A-58060.



#### 7.4 Addresses for obtaining copies of referenced documents.

7.4.1 Air-Conditioning and Refrigeration Institute. Copies of ARI Standard 700 may be obtained from the Air-Conditioning and Refrigeration Institute (ARI), 4100 N. Fairfax Drive, Suite 200, Arlington, VA 22203 or online at <http://www.ari.org>.

7.4.2 Federal Acquisition Regulations. Copies of the Federal Acquisition Regulations may be obtained from the Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250-7954 or online at <http://www.arnet.gov/far>.

7.4.3 Federal regulations. Copies of Title 49 of the Code of Federal Regulations may be obtained from the Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250-7954 or online at <http://www.access.gpo.gov>.

7.4.4 Military specifications and standards. Copies of A-A-59666, MIL-DTL-2/22, and MIL-STD-1411 may be obtained from the Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250-7954 or online at <http://assist.daps.dla.mil/quicksearch>.

7.4.5 Department of Transportation. Copies of DOT Specification 39 may be obtained from the US Department of Transportation, 400 7<sup>th</sup> Street, S.W., Washington, DC 20590 or online at <http://www.dot.gov>.

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### 7.5 Key Words.

Cylinders  
Difluoroethane  
Difluoromethane  
Drums  
Monochlorodifluoromethane  
Monochlorotetrafluoroethane  
Pentafluoroethane  
Propane  
Propylene

### MILITARY INTERESTS:

Custodian:  
Air Force – 68

Preparing Activity:  
Air Force – 68

Review Activities:  
Army – AV  
Navy – SH  
DLA – GS

(Project 6830–1065)

CIVIL AGENCY COORDINATION ACTIVITY:  
GSA – FSS

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