

Spray Kit, Self Pressurized

FSC 4940

NOTICE

This document has been taken directly from U.S. Military Specification MIL-S-22805B, Amendment 1 and contains only minor editorial and format changes required to bring it into conformance with the publishing requirements of SAE technical standards. The initial release of this document is intended to replace MIL-S-22805B, Amendment 1. Any part numbers established by the original specification remain unchanged.

The original Military Specification was adopted as an SAE standard under the provisions of the SAE Technical Standards Board (TSB) Rules and Regulations (TSB 001) pertaining to accelerated adoption of government specifications and standards. TSB rules provide for (a) the publication of portions of unrevised government specifications and standards without consensus voting at the SAE Committee level, and (b) the use of the existing government specification or standard format.

Under Department of Defense policies and procedures, any qualification requirements and associated qualified products lists are mandatory for DOD contracts. Any requirement relating to qualified products lists (QPL's) has not been adopted by SAE and is not part of this SAE technical document.

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

Copyright 1999 Society of Automotive Engineers, Inc.
All rights reserved.

QUESTIONS REGARDING THIS DOCUMENT:
TO PLACE A DOCUMENT ORDER:
SAE WEB ADDRESS:

(724) 772-8510
(724) 776-4970
<http://www.sae.org>

FAX: (724) 776-0243
FAX: (724) 776-0790



Documents
Document Sharing Hub

SAE AS22805

1. SCOPE:

1.1 Scope:

This specification covers the requirements for disposable self-pressurized kits which utilize a propellant can pressurized with a liquified gas to atomize a product contained in a separate but attached jar (see 6.1).

1.2 Classification:

The disposable kits shall be classified as follows (see 6.2d):

1.2.1 Types:

Type I - Non-flammable propellant unit.

Type II - Flammable propellant unit

1.2.2 Classes: Type I shall be available in the following classes.

Class 134A - Hydrofluorocarbon (HFC) propellant

2. APPLICABLE DOCUMENTS:

2.1 Government documents:

2.1.1 Specifications and standards: The following specifications and standards form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2b).

SPECIFICATIONS

FEDERAL

BB-F-1421	Fluorocarbon Refrigerants
TT-T-266	Thinner, Dope and Lacquer (Cellulose-Nitrate)
PPP-B-576	Boxes, Wood, Cleated, Veneer, Paper Overlaid
PPP-B-591	Boxes, Fiberboard, Wood-Cleated
PPP-B-601	Boxes, Wood, Cleated-Plywood
PPP-B-621	Boxes, Wood, Nailed and Lock-Corner
PPP-B-636	Boxes, Shipping, Fiberboard
PPP-B-665	Boxes, Paperboard, Metal Edged and Components

2.1.1 (Continued):

MILITARY

MIL-L-19537 Lacquer, Acrylic-Nitrocellulose, Gloss (for Aircraft Use)

STANDARDS

FEDERAL

FED-STD-141 Paint, Varnish, Lacquer, and Related Materials, Methods of Inspection, Sampling and Testing

MILITARY

MIL-STD-105 Sampling Procedures and Tables for Inspection by Attributes

MIL-STD-129 Marking for Shipment and Storage

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.1.2 Other Government documents and drawings: The following other Government documents and drawings form a part of this specification to the extent specified herein. Unless otherwise specified, the issues shall be those in effect on the date of the solicitation.

DEPARTMENT OF TRANSPORTATION

CFR 49 Code of Federal Regulations, Title 49 - Transportation

(Application for copies should be addressed to the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.)

2.2 Order of precedence:

In the event of a conflict between the text of this document and the references cited herein (except for related associated detail specifications, specification sheets, or MS standards), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS:

3.1 First article:

The spray kit furnished under this specification shall be a product which has been subjected to the first article inspection (see 6.3) in accordance with 4.3.

3.1.1 Type I propellant:

3.1.1.2 Class 134A: The propellant for Type I, Class 134A shall consist of hydrofluorocarbons or a blend containing hydrofluorocarbons. Class 134A blends shall contain no chlorinated solvents, hydrochlorofluorocarbons or fully halogenated chlorofluorocarbons.

3.1.2 Type II propellant: The propellant for Type II shall consist of a hydrocarbon solvent blend.

3.2 Spray kit:

The kit shall consist of 4 spray devices, 10 propellant cans, 4 product jars provided with lids, and 20 dip tubes cut to proper length.

3.3 Spray unit:

The spray unit shall consist of a spray device, a propellant can, a jar and a dip tube. The spray unit shall be designed so that no component will become detached during handling or operation. The finished product shall be in compliance with all applicable Department of Transportation Regulations.

3.3.1 Spray device: The spray device shall consist of a housing or bridgelike piece which serves to unitize a propellant can power supply, a product jar, a dip tube, a spray nozzle, and a trigger or activating mechanism. The spray device shall be a rigid structure which shall prevent relative movement of the propellant can, jar and spray head during handling and operation. The spray device shall be designed so that no component part will become detached during handling or operation.

3.3.1.1 Spray nozzle: The spray nozzle shall consist of a product delivery orifice and a propellant delivery orifice firmly secured to the housing or bridge portion. The spray nozzle shall be an external mixing type and must be designed so that the positioning of the orifices will not be disturbed during handling, use, or cleaning, and shall be of corrosion and solvent resistant construction. The product delivery portion shall be designed so that the dip tube can be securely fixed to it and allow not less than 1/4 inch exposure for attachment.

SAE AS22805

- 3.3.1.2 Activating mechanism: The activating mechanism shall be designed for convenient operation, requiring only one hand to hold and operate the unit. The activating mechanism shall be readily operated by finger pressure. A movement of the finger in activating the mechanism shall be not greater than 1/4 inch to activate the valve.
- 3.3.2 Propellant can: The size of the propellant can shall be 211 x 413 mm and shall comply with specification DOT.2Q of part 178 of CFR 49. The can shall be free of foreign matter and shall be provided with a valve for dispensing the propellant. The can shall have an exterior coating to prevent corrosion.
- 3.3.2.1 Type I propellant charge: The propellant charge for Type I, Class 22 shall be 340 grams of material or blend described in 3.1.1.1. The propellant charge for Type I, Class 134A shall be 330 grams of material or blend described in 3.1.1.2.
- 3.3.2.2 Type II propellant charge: The propellant charge to Type II shall be 184 grams of the solvent blend described in 3.1.2.
- 3.3.2.3 Valve: The valve shall be centrally located on the valve cup and shall be capable of being operated by the activating mechanism. The valve shall be a spray type valve through which the vapor phase propellant shall be delivered.
- 3.3.2.4 Valve cover: A snap fitted rigid plastic or metal cover for the valve cup shall be provided to protect the valve from damage or accidental functioning during transportation or storage where parts of the valve mechanism extend above the valve cup.
- 3.3.3 Product jar: The jar shall be a minimum of 4 fluid ounce capacity and a maximum of 8 fluid ounce capacity and be graduated with permanent and durable markings of 1/2 ounce increments. The jar and lid shall be shatter resistant plastic when tested in accordance with 4.6.5. The product jar shall conform to the jar clarity test of 4.6.4. A lid shall be provided for each product jar capable of effecting a solvent-proof seal.
- 3.3.4 Dip tube: The dip tube shall be solvent and crack-resistant material and shall be of such length as to come to within 1/8 to 1/4 inch of the bottom of the jar in final assembly.
- 3.4 Interchangeability within kit components:
- The components of the spray kit shall comply to the applicable requirements of this specification, and shall be interchangeable with like components of the kit and like components of other kits procured under the same contract.
- 3.5 Physical properties:
- The spray unit, or the components thereof, shall conform to the requirements of Table I, when tested as specified herein and in the sequence listed.

SAE AS22805

TABLE I. Physical properties

TESTS	REQUIREMENTS	TEST PARAGRAPH
Propellant Content, min Type I, Class 134A Type II	330 grams 184 grams	4.6.1
Solvent resistance	No apparent deterioration	4.6.2
Fatigue	No deleterious effects	4.6.3
Jar clarity	Sufficiently transparent to display liquid content level	4.6.4
Jar breakage	Shatter resistant, no scattering of jar fragments	4.6.5
Valve operation	Opens and closes freely; no leakage	4.6.6
Dip tube pressure	Vacuum 2.65 inches of mercury (min) or minus 1.3 psig (min)	4.6.7
Delivery rate Propellant Product	3.75 gms 8.25 gms 8.0 gms (min)	4.6.8.1 4.6.8.2
Spraying efficiency	1.4 min	4.6.8.3
Spraying properties	1-1/2 inches width (min) uniform coating	4.6.9
Continuous discharge	No loss of spray	4.6.10
Leakage Static Dynamic	No leakage No leakage	4.6.11.1 4.6.11.2
Propellant pressure	59 to 70 psig	4.6.12

3.6 Workmanship:

All details of workmanship shall be in accordance with standard commercial practice.