

Cleaning Methods and Procedures
for
Breathing Oxygen Equipment

FSC 1660

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SAE AS13591 Revision A

FOREWORD

This document supersedes MIL-STD-1359A dated 31 October 1977. The purpose of MIL-STD-1359B is to standardize the cleaning methods and procedures for oxygen equipment used for breathing purposes by establishing guidelines.

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1. SCOPE:

1.1 Purpose:

The purpose of this document is to provide minimum requirements for cleaning aircraft breathing oxygen systems and components, inspection methods and packaging after cleaning, and guidelines for oxygen equipment cleaning areas.

1.1.1 Applicability: When this standard is specified in an acquisition document, the applicable requirements of this standard that apply to the acquisition document shall be identified.

1.1.2 Application guidance: Certain provisions of this standard and the manufacturer's cleaning inspection and packaging procedures may differ due to oxygen equipment complexity of construction, material, etc. These differences shall be identified in the acquisition document with a determination of what is acceptable; the provisions of this standard, the manufacturer's procedure, or a specified acceptable alternate, as applicable.

1.2 Classification:

For the purpose of this standard, breathing oxygen equipment shall be classified as follows:

Class 1 - Parts and assemblies exposed to oxygen pressures over 450 psi (3.1 MPa) or liquid oxygen.

Class 2 - Parts and assemblies exposed to oxygen pressures from 10 to 450 psi (6.89 kPa to 3.1MPa), inclusive.

Class 3 - Parts and assemblies exposed to oxygen pressures up to 10 psi (6.9 kPa) (such as face masks, large bore regulator-to-connector hoses, oxygen mask hose connectors, etc.).

2. REFERENCED DOCUMENTS:

2.1 Government documents:

- 2.1.1 Specifications, standards, and handbooks: Unless otherwise specified, the following specifications, standards, and handbooks of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation form a part of this standard to the extent specified herein.

SPECIFICATIONS

FEDERAL

- | | |
|-----------|---------------------------------------|
| P-S-1792 | - Soap, Laundry, (Neutral and Built). |
| BB-A-1034 | - Compressed Air, Breathing. |
| BB-N-411 | - Nitrogen, Technical. |
| PPP-B-566 | - Boxes, Folding, Paperboard. |
| PPP-B-636 | - Boxes, Shipping, Fiberboard. |
| PPP-B-676 | - Boxes, Setup. |

MILITARY

- | | |
|-------------|--|
| MIL-P-116 | - Preservation, Methods of. |
| MIL-C-5501 | - Caps and Plugs, Protective, Dust and Moisture Seal, General Specification for. |
| MIL-D-16791 | - Detergents, General Purpose (Liquid, Nonionic). |
| MIL-P-26514 | - Polyurethane Foam, Rigid or Flexible, For Packaging. |
| MIL-O-27210 | - Oxygen, Aviators Breathing, Liquid and Gas. |
| MIL-C-81302 | - Cleaning Compound, Solvent, Trichlorotrifluoroethane. |
| MIL-T-81533 | - Trichloroethane 1,1,1 (Methyl Chloroform) Inhibited, Vapor Degreasing. |

STANDARDS

FEDERAL

- | | |
|-------------|---|
| FED-STD-209 | - Clean Room and Work Station Requirements, Controlled Environment. |
|-------------|---|

MILITARY

- | | |
|----------------|--|
| MIL-STD-129 | - Marking for Shipment and Storage |
| MIL-STD-2073-1 | - DOD Materiel Procedures for Development and Application of Packaging Requirements. |

- 2.1.2 Other Government documents, drawings, and publications: The following other Government documents, drawings, and publications form a part of this standard to the extent specified herein.

PUBLICATIONS

NAVAL AIR SYSTEMS COMMAND

NAVAIR 13-1-6.4 - Oxygen Equipment.

AIR FORCE

USAF T.O. 15X-1-1 - Oxygen Equipment.

ARMY

TM55-1660-245-12 - Oxygen Equipment.

(Copies of specifications, standards, handbooks, drawings, and publications required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting officer.)

- 2.2 Order of precedence:

In the event of a conflict between the text of this standard and the references cited herein, the text of this standard shall take precedence.

3. DEFINITIONS:

- 3.1 Clean:

Cleaned to a specified cleanliness level by the removal of contaminants, which include: oil, grease, other organic materials, odors, and particles such as loose scale, corrosion products, grit and filings.

- 3.2 Clean area:

An enclosed working area employing control, as required, over the particulate matter in air with temperature, humidity, and pressure control.

- 3.3 Cleaning agent:

Any compound or substance which promotes the removal of contaminants through mechanical or chemical action.