



AEROSPACE STANDARD

AS8010™**REV. D**

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Superseding AS8010C

Aviator's Breathing Oxygen Purity Standard

RATIONALE

The aim of this edition is to harmonize impurity requirements, of various oxygen supply technologies; like gaseous-, chemical-, liquid-, or in situ-generated oxygen. Limits included in this edition correspond from human physiology point of view to acknowledged data of American Conference of Governmental Industrial Hygienists (ACGIH) and National Institute for Occupational Safety and Health (NIOSH).

AS8010D has been reaffirmed to comply with the SAE Five-Year Review policy.

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Documents

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1. SCOPE

This document defines the minimum degree of purity and maximum levels of certain deleterious impurities allowable for aviator's breathing oxygen at the point of manufacture or generation. It covers gaseous, liquid, and chemically generated oxygen, and oxygen supplied by in situ concentration and in situ electrolysis.

Different limits are established for oxygen from different sources, in recognition of differences in the ways the oxygen is stored, dispensed, and utilized, taking into account the safety of the user. These limits are not intended to specifically reflect upon the relative capabilities or merits of various technologies. Procurement documents may specify more stringent limits, where required for specific applications.

Medical oxygen is not covered by this standard. In the United States, medical oxygen is a prescription drug and complies with the United States Pharmacopoeia (USP). In Europe, medical oxygen specification complies with the European Pharmacopoeia monograph (Ph Eur 0417).

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1.1 U.S. Government Publications

Copies of these documents are available online at <http://quicksearch.dla.mil>.

MIL-PRF-27210 Oxygen, Aviator's Breathing, Liquid and Gas

MIL-STD-3050 Aircraft Crew Breathing Systems using on-board Oxygen Generating System (OBOGS)

Copies of these documents are available online at <https://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR>.

EPA 40 CFR Parts 50, 51, 52, 53 and 58 United States Environmental Protection Agency National Ambient Air Quality Standards for Particulate Matter

2.1.2 CGA Publications

Available from CGA, 14501 George Carter Way, Suite 103, Chantilly, VA 20151, Tel: 703-788-2700, www.cganet.com.

CGA G-4.3 Commodity Specification for Oxygen

2.1.3 Other References

ACGIH American Conference of Governmental Industrial Hygienists (<http://www.acgih.org>)

NIOSH National Institute for Occupational Safety and Health (<https://www.cdc.gov/niosh>)

2.2 Definitions

ACGIH: The American Conference of Governmental Industrial Hygienists is an association that establishes and recommends exposure limits for chemical substances and physical agents.

EPA: The United States Environmental Protection Agency is an agency of the federal government of the United States responsible for human health and environment protection.