



# AEROSPACE STANDARD

**AS1303™****REV. B**

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| Issued     | 1973-05 |
| Revised    | 1996-10 |
| Reaffirmed | 2011-06 |
| Stabilized | 2017-01 |

Superseding AS1303A

## Portable Chemical Oxygen

### RATIONALE

This document has been determined to contain basic and stable technology which is not dynamic in nature.

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## 1. SCOPE:

This SAE Aerospace Standard (AS) applies to a portable chemical oxygen generator assembly intended for the following uses:

- a. First aid treatment of aircraft occupants after an emergency descent following a decompression or other emergency condition.
- b. Use by cabin attendants to maintain their mobility after a decompression.

## 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 SAE Publications: Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

|         |                                                          |
|---------|----------------------------------------------------------|
| ARP1894 | Useful Life Determination for Chemical Oxygen Generators |
| AS8010  | Aviators Breathing Oxygen Purity Standard                |

#### 2.1.2 RTCA Documents: Available from Radio Technical Commission for Aeronautics Secretariat, Suite 500, 1425 K Street, N.W., Washington, DC 20005. The latest issue of applicable RTCA documents shall apply.

|             |                                                                     |
|-------------|---------------------------------------------------------------------|
| RTCA/DO-160 | Environmental Conditions and Test Procedures for Airborne Equipment |
|-------------|---------------------------------------------------------------------|

- 2.1.3 EUROCAE Documents: Available from EUROCAE - 11, rue Hamelin - 75783 PARIS CEDEX 16, France.

ED-14 Environmental Conditions and Test Procedures for Airborne Electronic/Electrical Equipment and Instruments

NOTE: EUROCAE ED-14C and RTCA/DO-160C are equivalent documents. It is anticipated this equivalency will be maintained in future revisions. However, in the event of differences between future versions of these documents, the requirements stated in RTCA/DO-160 shall take precedence.

- 2.1.4 FAA Documents: Available from US Government Printing Office, Superintendent of Documents, Washington, DC 20402-9329.

TSO C64a Oxygen Mask Assembly, Continuous Flow, Passenger

- 2.1.5 ASQC Documents: Available from American Society for Quality Control, 230 Wells St., Milwaukee, WI 53203.

The ASQC Basic References in Quality Control, Volume 4: How to Perform Skip-Lot and Chain Sampling, by Kenneth S. Stephens

## 2.2 Related Publications:

- 2.2.1 NATO Publications: Available from North Atlantic Treaty Organization, Military Agency for Standardization (MAS), 1110 Brussels, Belgium. Also available from Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120.

STANAG 3688 GGS Characteristics Of Breathable Oxygen Supplied By Chemical Solid Generators

## 2.3 Definitions:

**CHEMICAL CORE:** An object, composed of sodium chlorate or an analogous alkali metal chlorate or perchlorate, formulated with fuels, catalysts, and other modifiers and additives as required by the particular design, which evolves oxygen by a controlled chemical decomposition reaction, when actuated. Also sometimes called a chlorate candle.

**CHEMICAL OXYGEN GENERATOR:** A device comprising a chemical core and its surrounding mechanical enclosure, insulating material, actuation means for the chemical core, pressure relief means, and any necessary filtering means. A means of conveying evolved oxygen to the masks is also frequently included, although that function can also be fulfilled by an external manifold.