INTERNATIONAL STANDARD

ISO 14951-12

First edition
1999-10-01

Space systems — Fluid characteristics —

Part 12:
Carbon dioxide

Systèmes spatiaux — Caractéristiques des fluides —

Partie 12: Dioxide de carbone

Reference number
ISO 14951-12:1999(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 14951-12 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 14, *Space systems and operations*.

ISO 14951 consists of the following parts, under the general title *Space systems — Fluid characteristics*:

— *Part 1: Oxygen*

— *Part 2: Hydrogen propellant*

— *Part 3: Nitrogen*

— *Part 4: Helium*

— *Part 5: Nitrogen tetroxide propellant*

— *Part 6: Monomethylhydrazine propellant*

— *Part 7: Hydrazine propellant*

— *Part 8: Kerosene propellant*

— *Part 9: Argon*

— *Part 10: Water*

— *Part 11: Ammonia*

— *Part 12: Carbon dioxide*

— *Part 13: Breathing air*

International Organization for Standardization
Case postale 56 • CH-1211 Genève 20 • Switzerland
Internet iso@iso.ch

Printed in Switzerland

Space systems — Fluid characteristics —

Part 12:
Carbon dioxide

1 Scope

This part of ISO 14951 specifies limits for the composition of carbon dioxide (CO_2) intended for purging and pressurization of space systems, and test methods for verification of its composition.

This part of ISO 14951 is applicable to carbon dioxide used in both flight hardware and ground facilities, systems, and equipment. It is applicable to influents only to the extent specified herein.

2 Composition

The composition of carbon dioxide delivered to the flight vehicle interface shall be in accordance with the limits given in Table 1 when tested in accordance with the applicable test methods.

3 Test methods

3.1 Sampling

The carbon dioxide should be selected in accordance with a sampling plan that will produce results with sensitivities and accuracies equivalent to or better than those required to meet the programme or project requirements.

3.2 Composition tests

The composition of the carbon dioxide shall be tested by such methods, apparatus, or analyzers as may be required to produce results with the sensitivities and accuracies necessary to meet programme or project requirements.

Table 1 — Composition limits

Characteristic		Limit
Purity	volume fraction, %, min.	99
Moisture, at 21 °C and 760 mm Hg	mg per litre of gas, max.	0,092

ICS 49.140

Price based on 1 page