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# Space systems — Safety and compatibility of materials —

### Part 3:

## Determination of offgassed products from materials and assembled articles

Systèmes spatiaux — Sécurité et compatibilité des matériaux — Partie 3: Détermination des produits issus du dégazage sous atmosphère des matériaux et des articles assemblés



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#### **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 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 14624-3 was prepared by Technical Committee ISO/TC 20, Aircraft and space vehicles, Subcommittee SC 14, Space systems and operations.

ISO 14624 consists of the following parts, under the general title *Space systems* — *Safety and compatibility of materials*:

- Part 1: Determination of upward flammability of materials
- Part 2: Determination of flammability of electrical-wire insulation and accessory materials
- Part 3: Determination of offgassed products from materials and assembled articles
- Part 4: Determination of upward flammability of materials in pressurized gaseous oxygen or oxygenenriched environments
- Part 5: Determination of reactivity of system/component materials with aerospace propellants
- Part 6: Determination of reactivity of processing materials with aerospace fluids
- Part 7: Determination of permeability rate and penetration resistance of materials to aerospace fluids

#### Introduction

Throughout this part of ISO 14624, the minimum essential criteria are identified by the use of the imperative or the key word "shall". Recommended criteria are identified by the use of the key word "should" and, while not mandatory, are considered to be of primary importance in providing serviceable, economical and practical designs. Deviations from the recommended criteria may be made only after careful consideration, extensive testing and thorough service evaluation have shown an alternative method to be satisfactory.

The data obtained from this test are used for a toxicological assessment of the risks to personnel. Additional information can be gathered utilizing this test method, for example, taking samples at equal intervals can provide information on offgassing rates.