

IRISH STANDARD

I.S. CEN/TS 14507-1:2003

ICS 11.040.10

National Standards Authority of Ireland Dublin 9 Ireland

Tel: (01) 807 3800 Tel: (01) 807 3838

INHALATIONAL NITRIC OXIDE SYSTEMS -

PART 1: DELIVERY SYSTEMS

This Irish Standard was published under the authority of the National Standards Authority of Ireland and comes into effect on:

August 8, 2003

NO COPYING WITHOUT NSAI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

© NSAI 2003 Price Code I

Údarás um Chaighdeáin Náisiúnta na hÉireann

This is a free page sample. Access the full version online.

TECHNICAL SPECIFICATION SPÉCIFICATION TECHNIQUE TECHNISCHE SPEZIFIKATION

CEN/TS 14507-1

March 2003

ICS 11.040.10

English version

Inhalational nitric oxide systems - Part 1: Delivery systems

Inhalationssysteme für Stickstoffmonoxid - Teil 1: Abgabesysteme

This Technical Specification (CEN/TS) was approved by CEN on 02 November 2002 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

CEN/TS 14507-1:2003 (E)

COIII	ents	rage
Forewo	ord	4
Section	n one — General	4
1	Scope	4
2	Normative references	5
3	Terms and definitions and terminology	6
4 4.1 4.2	General requirements and requirements for tests	6
5	Classification	7
6 6.1	Identification, marking and documents	
7	Power Input	9
Section	n two — Environmental conditions	9
В	Basic safety categories	9
9	Removable protective means	9
10	Environmental conditions	9
11	Not used	9
12	Not used	9
Section	n three — Protection against electrical shock hazards	9
13	General	9
14	Requirements related to classification	9
15	Limitation of voltage and/or energy	9
16	Enclosures and protective covers	10
17	Separation	10
18	Protective earthing, functional earthing and potential equalization	10
19	Continuous leakage current and patient auxiliary current	10
20	Dielectric strength	10
Section	n four — Protection against mechanical hazards	10
21	Mechanical strength	10
22	Moving parts	11
23	Surfaces, corners, and edges	11
24	Stability in normal use	11
25	Expelled parts	11
26	Vibration and noise	11
27	Pneumatic and hydraulic power	11

CEN/TS 14507-1:2003 (E)

28	Suspended masses	11
Section	n five — Protection against hazards from unwanted or excessive radiation	12
29	X-Radiation	12
30	Alpha, beta, gamma, neutron radiation and other particle radiation	12
31	Microwave radiation	12
32	Light radiation (including lasers)	12
33	Infra-red radiation	12
34	Ultra-violet radiation	12
35	Acoustical energy (including ultrasonics)	12
36	Electromagnetic compatibility	12
Section	n six — Protection against hazards of ignition of flammable mixtures	13
Section	n seven — Protection against excessive temperatures and other safety hazards	13
42	Excessive temperatures	13
43 R)	Fire prevention	13
44	Overflow, spillage, leakage, humidity, ingress of liquids, cleaning, sterilization and disinfection	13
45	Pressure vessels and parts subject to pressure	14
46	Human errors	14
47	Electrostatic charges	14
48	Biocompatibility	14
49	Interruption of the power supply	14
Section	n eight — Accuracy of operation data and protection against incorrect output	15
50	Accuracy of operating data	15
51	Protection against hazardous output	15
Section	n nine — Abnormal operation and fault conditions — Environmental tests	17
52	Abnormal operation and fault conditions	17
53	Environmental tests	17
Section	n ten — Constructional requirements	17
54	General	17
55	Enclosures and covers	17
56	Components and general assembly	17
57	Mains parts, components and layout	18
58	Protective earthing — Terminals and connections	19
59	Construction and layout	19
Annexe	es	22
Annex	AA (informative) Rationale	23
Bibliog	ıraphy	26

CEN/TS 14507-1:2003 (E)

Foreword

This document (CEN/TS 14507-1:2003) has been prepared by Technical Committee CEN/TC 215 "Respiratory and anaesthetic equipment", the secretariat of which is held by BSI.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

CEN/TS 14507 consists of the following Parts under the general title "Inhalational nitric oxide systems"

Part 1 - Delivery systems

Part 2 - Supply systems

Attention is drawn to the rationales and guidance on equipment for use with nitric oxide given in CR 13903

Annex AA of this Part of CEN/TS 14507 is given for information and contains rationale statements for this Part of CEN/TS 14507. The clauses which have corresponding rationale statements are marked with R) after their number.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to anounce this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

Section one — General

1 Scope

This Part of CEN/TS 14507 refers to EN 60601-1:1990 "Medical electrical equipment — Part 1: General requirements for safety", as amended by its amendments 1 (1991) and 2 (1995). For brevity Part 1 is referred to in this Part of CEN/TS 14507 either as the General Standard or as the General requirements.

The scope given in clause 1 of the General Standard applies except that 1.1 is replaced by the following:

1.1 This Part of CEN/TS 14507 specifies particular requirements for inhalational nitric oxide delivery systems and their modules. It covers devices which can be supplied in combined units, integrated into another medical device, for example a lung ventilator, or as individual devices.

This Part of CEN/TS 14507 addresses the monitoring of nitric oxide and oxygen delivery to the patient and minimization of the production of nitrogen dioxide.

This Part of CEN/TS 14507 covers the requirements for inhalational nitric oxide delivery systems intended for medical use, for example, in critical care, anaesthesia, and emergency/transport environments.

NOTE It is recognized that from time to time innovations and designs will appear that offer advantages and yet are not covered by specific safety-related design or performance aspects of this Part of CEN/TS 14507; such innovations are not to be discouraged. As the techniques and technologies in these innovations advance, it is essential that the safety objectives of this Part of CEN/TS 14507 are considered as minimum requirements.

The requirements of clause 1.3 of the General Standard apply with the following additions:

The numbering of clauses and subclauses of this Part of CEN/TS 14507 corresponds to that of the General Standard. The changes to the text of the General Standard are specified by the use of the following words:



The is a new provider i arenade and chare publication at the limit below	This is a free preview.	Purchase the	entire publication	at the link below:
--	-------------------------	--------------	--------------------	--------------------

Product Page

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation