EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

**EN 14470-2**

August 2006

ICS 13.220.40; 71.040.10

# Foreword

This document (EN 14470-2:2006) has been prepared by Technical Committee CEN/TC 332 “Laboratory equipment”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2007, and conflicting national standards shall be withdrawn at the latest by February 2007.

EN 14470, *Fire safety storage cabinets*, consists of the following parts:

- Part 1: Safety storage cabinets for flammable liquids
- Part 2: Safety cabinets for pressurised gas cylinders

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

# Introduction

This European standard describes the design and test criteria for safety cabinets used by laboratories to store pressurised gas cylinders at normal room temperature.

The cabinet is designed and constructed to ensure that in the event of fire, the contents of the cabinet do not contribute any additional risks or spread the fire for at least 15 minutes.

The cabinet is also designed and constructed to ventilate minor gas leakage within the cabinet.

Testing the cabinet under fire conditions is a normative part of this standard and the procedures and interpretation of the tests are described in detail.

The fire rating allows time for personnel to leave and fire fighters to enter the area before the pressurised gas cylinders become unstable.

## 1 Scope

This European standard is a product specification, giving performance requirements for fire safety cabinets used for storing pressurised gas cylinders. It is applicable to cabinets with a total internal volume suitable to store pressurised gas cylinders with a total volume not exceeding 220 l, including cylinders of purging gases.

NOTE 1 This means that up to four gas cylinders of 50 l or up to three gas cylinders of 70 l can be stored in a single cabinet.

NOTE 2 It is intended that the pressurised gas cylinders can be in use while in the cabinet.

NOTE 3 Attention is drawn to national regulations which can apply with regard to the storage and use of pressurised gas cylinders.

NOTE 4 The safety cabinet can be free standing, restrained to a wall or mounted on wheels or castors.

This standard is not applicable to brick enclosures, walk-in storage rooms or cabinets which do not take their weight on their base.

Requirements are given in respect to the construction of the cabinet and its capacity to resist fire conditions on the outside. A type test is included, which is based on the already existing fire resistance (heating curve) tests given in EN 14470-1.

The tests described in this European Standard are type tests (for the storage of flammable liquids EN 14470-1 is applicable – the criteria for failure are different – see Annex A).

## 2 Normative references

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1363-1:1999, *Fire resistance tests — Part 1: General requirements*

EN ISO 13943:2000, *Fire safety — Vocabulary (ISO 13943:2000)*
ISO 3864 (all parts), *Graphical symbols - Safety colours and safety signs*

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