

Estimation of the lethal toxic potency of fire effluents

ICS 13.220.40; 13.220.50

National foreword

This British Standard is the UK implementation of ISO 13344:2004. It supersedes BS ISO 13344:1996 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee FSH/16, Hazards to life from fire.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

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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 13344 was prepared by Technical Committee ISO/TC 92, *Fire safety*, Subcommittee SC 3, *Fire threat to people and environment*.

This second edition cancels and replaces the first edition (ISO 13344:1996), which has been technically revised.

Introduction

The pyrolysis or combustion of every combustible material produces a fire effluent atmosphere, which, in sufficiently high concentration, is toxic. It is, therefore, desirable to establish a standard test method for the determination of the toxic potency of such fire effluents.

It is further desirable, in view of worldwide resistance to the exposure of animals in standard tests, that this method should not make mandatory the use of such animals in its procedures. The mandatory portion of this standard test does not, therefore, specify the use of animal exposures. It only refers to animal exposure data already reported in the literature, with calculations being employed to express test results as they would have been obtained had animals actually been employed.

For those cases in which confirmation of test results using animal exposures can be justifiably permitted, an optional procedure to do so is presented in Annex A.

The two parameters calculated using this standard are the FED (Fractional Effective Dose) and the LC_{50} . When either of these is used in performing a hazard analysis, certain information must accompany the term to avoid confusion. In the case of the FED, that is the toxicological effect on which the FED is based and the species for which the FED has been determined. In the case of the LC_{50} , that information is the length of the exposure and the animal species for which the LC_{50} has been determined.

