



Designation: ~~E1732-09~~ Designation: E1732 - 11

Standard Terminology Relating to Forensic Science¹

This standard is issued under the fixed designation E1732; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This is a compilation of terms and corresponding definitions used in the forensic sciences. Legal or scientific terms that are generally understood or defined adequately in other readily available sources may not be included.

1.2 A definition is a single sentence with additional information included in ~~notes~~ a *Discussion*. It is reviewed every five years, and the year of last review or revision is appended.

1.3 Definitions identical to those published by another standards organization or ASTM committee are identified with the abbreviation of the name of the organization or the identifying document and ASTM committee; for example, ASME is the American Society of Mechanical Engineering.²

1.4 Definitions of terms specific to a particular field are identified with an abbreviation.³

2. Referenced Documents

2.1 ASTM Standards:⁴

E135 [Terminology Relating to Analytical Chemistry for Metals, Ores, and Related Materials](#)

E177 [Practice for Use of the Terms Precision and Bias in ASTM Test Methods](#)

E456 [Terminology Relating to Quality and Statistics](#) E1187 [Terminology Relating to Conformity Assessment](#)

E1301 [Guide for Proficiency Testing by Interlaboratory Comparisons](#)

E1387 [Test Method for Ignitable Liquid Residues in Extracts from Fire Debris Samples by Gas Chromatography](#) 1402 [Guide for Sampling Design](#)

(<https://standards.iteh.ai>)
Document Preview

[ASTM E1732-11](#)

<https://standards.iteh.ai/catalog/standards/sist/8c686491-fd53-4b42-afa7-16206d58e438/astm-e1732-11>

¹ This terminology is under the jurisdiction of ASTM Committee E30 on Forensic Sciences and is the direct responsibility of Subcommittee E30.92 on Terminology. Current edition approved July 15, 2009. Published October 2009. Originally approved in 1995. Last previous edition approved in 2005 as E1732-96a(2005). DOI: 10.1520/E1732-09.

Current edition approved June 1, 2011. Published July 2011. Originally approved in 1995. Last previous edition approved in 2009 as E1732 - 09. DOI: 10.1520/E1732-11.

² Any definition that is unsourced has been developed by ASTM Subcommittee E30.92.

³ Abbreviations are as follows: CRIM = criminalistics, QD = questioned documents, ENGR = engineering, TOX = toxicology, PB = pathology/biology, ANTH = anthropology, and ODN = odontology.

⁴ For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

2.2 ISO Standards:⁵

ISO 3534:1993 (E/F) Statistics—Vocabulary and Symbols

Part 1: Probability and General Statistical Terms

Part 2: Statistical Quality Control

ISO 8402:1994 Quality Management and Quality Assurance—Vocabulary

ISO 9000:2000 (E) Standard Quality Management Systems—Fundamentals and Vocabulary

ISO 9000:2005 (E) Standard Quality Management Systems—Fundamentals and Vocabulary

ISO Guide 2 General Terms and Their Definitions Relating to Standardizing Activities

ISO Guide 30 Terms and Definitions Used in Connection with Reference Materials ISO Guide 17025 General Requirements for the Competence of Calibration and Testing Laboratories

ISO Standard 3534:1993 (E/F) Statistics — Vocabulary and Symbols Part 1: Probability and General Statistical Terms Part 2: Statistical Quality Control

ISO 9000:2000 (E) Standard Quality management systems—Fundamentals and vocabulary International Vocabulary of Basic and General Terms in Metrology (VIM), ISO

ISO GUM Guide to the Expression of Uncertainty in Measurement (GUM)

ISO VIM International Vocabulary of Basic and General Terms in Metrology (VIM)

2.3 Other Sources:

The Fitness for Purpose of Analytical Methods English Edition, EURACHEM Working Group, IUPAC Compendium of Chemical Terminology second edition (1997), International Union of Pure and Applied Chemistry Glossary of Terms and Definitions, Scientific Working Group for the Analysis of Seized Drugs (SWGDRUG); reviewed 2005

EURACHEM The Fitness for Purpose of Analytical Methods, EURACHEM Working Group, English Edition

IAAI Glossary Glossary of Terms Related to Chemical and Instrumental Analysis of Fire Debris, IAAI Forensic Science Committee⁶

IUPAC Terminology IUPAC Compendium of Chemical Terminology, Second Edition, 1997

3. Significance and Use

3.1 These terms have particular application to the forensic sciences. In addition, a hierarchy of sources of definitions were used in the development of this terminology. The hierarchy is as follows: *Websters New Collegiate 7th Dictionary*; technical dictionaries; and the *Compilation of ASTM Standard Definitions*.⁷ The subcommittee developed a suitable definition after all of the sources in the hierarchy were found wanting.

4. Terminology

4.1 Definitions:

accelerant, *n*—any material used to initiate or promote the spread of a fire. The most common accelerants are flammable or combustible liquids. Whether a substance is an accelerant depends not on its chemical structure but on its use (source: IAAI Forensic Science Committee, *Glossary of Terms Related to Chemical and Instrumental Analysis of Fire Debris*) (use: Test Method E1387) **CRIM.** —any material used to initiate or promote the spread of a fire. The most common accelerants are flammable or combustible liquids. Whether a substance is an accelerant depends not on its chemical structure but on its use.

IAAI Glossary

accreditation, *accuracy*, *n*—procedure by which an authoritative body gives formal recognition that a body or person is competent to carry out specific tasks. — **(E1187, ISO Guide 2)** — **the closeness of agreement between a test result and the accepted reference value.**

E177

DISCUSSION—(1) In practice, the accepted reference value is substituted for the true value.

(1) The term "accuracy," when applied to a set of test or measurement results, involves a combination of random components and a common systematic error or bias component.

(3) Accuracy refers to a combination of trueness and precision.

ISO 3534:1993 (E/F)

accrediting body, *n*—governmental or non-governmental body that conducts and administers a laboratory accreditation system; and grants accreditation. **(E1187, ISO Guide 2)**

evidence, *n*—that evidence which tends to link a person, place, or thing with another person, place, or thing.

calibration, *n*—the set of operations that establishes, under specified conditions, the relationship between values indicated by a measuring instrument or measuring system or values represented by a material, and the corresponding known values of

⁵ Available from International Organization for Standardization (ISO), 1, ch. de la Voie-Creuse, Case postale CP 56, CH-1211, CH-1211 Geneva 20, Switzerland, <http://www.iso.ch>; <http://www.iso.org>.

⁶ *Compilation of ASTM Standard Definitions, 7th Ed.*, ASTM, Philadelphia, PA, 1990.

⁶ Available from the International Association of Arson Investigators, Inc. (IAAI), 2111 Baldwin Avenue, Suite 203, Crofton, MD 21114, <http://firearson.com>.

⁷ Available from International Association of Arson Investigators, 5428 Del Maria Way, 201, P. O. Box 91119, Louisville, KY 40291, <http://firearson.com>.

⁷ ASTM Committee on Terminology, *Compilation of ASTM Standard Definitions, 7th ed.*, Philadelphia, PA: ASTM, 1990.