



Designation: E 2328 – 04

Standard Terminology Relating to Seized-Drug Analysis¹

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1. Scope

1.1 This is a compilation of terms and corresponding definitions used in forensic drug analysis.

1.2 Terms and their definitions are meant to apply to the practice of qualitative seized-drug analysis.

2. Referenced Documents

2.1 ASTM Standards:²

E 1968 Guide for Microcrystal testing in the Forensic analysis of Cocaine

E 1969 Guide for Microcrystal Testing in the Forensic Analysis of Methamphetamine and Amphetamine

E 456 Terminology Relating to Quality and Statistics

E 1187 Terminology Relating to Conformity Assessment

E 1301 Guide for Proficiency Testing by Interlaboratory Comparisons.

E 2326 Practice for the Education and Training of Seized-Drug Analysts

E 2327 Practice for Quality Assurance of Laboratories Performing Seized-Drug Analysts

E 2329 Practice for Identification of Seized Drugs

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

3. Significance and Use

3.1 The listed terms and definitions are meant to assist in interpreting the three standards: Practices E 2326, E 2327, and E 2328.

4. Terminology

Accreditation, *n*—procedure by which an authoritative body gives formal recognition that a body or person is competent

to carry out specific tasks. (ASTM E 1187, ISO guide 2)

Accrediting Body, *n*—governmental or non-governmental body that conducts and administers a laboratory accreditation system, and grants accreditation. (E 1187, ISO Guide 2)

Quality Audit, *n*—systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives. (E 1187, ISO 8402, 3.10)

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 measurement. (E 1187, ISO 17025)

Certified Reference Material (CRM), *n*—a reference material, accompanied by a certificate, one or more of whose property values are certified by a procedure that establishes traceability to an accurate realization of the unit in which the property values are expressed, and for which each certified value is accompanied by an uncertainty at a stated level of confidence. (E 1301, ISO Guide 30 without notes)

Certification Body, *n*—a body that conducts certifications of conformity. (E 1187, ISO Guide 2)

Certification of conformity, *n*—document issued under the rules of a certification system indicating that adequate confidence is provided that a duly identified product, process or service is in conformity with a specific standard or other normative document. (E 1187, ISO Guide 2)

Chain of Custody, *n*—procedures and documents that account for the possession of a sample by tracking its handling and storage from its point of collection to its final disposition.

Control, *n*—a material of established origin that is used to evaluate the performance of a test or comparison. (E 1732)

False Positive, *n*—a test result that states that a drug is present when, in fact, such a drug is not present in an amount greater than a threshold or designated cut-off concentration.

¹ This terminology is under the jurisdiction of ASTM Committee E30 on Forensic Sciences and is the direct responsibility of Subcommittee E30.01 on Criminalistics.

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² 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.

Testing Laboratory, *n*—laboratory that measures, examines, tests or otherwise determines the characteristics or performance of materials or products. (E 1187, ISO Guide 2)

Limit of Detection, *n*—the lowest content that can be measured with reasonable statistical certainty. (Eurachem-AOAC-PVMC)

Test Method, *n*—defined technical procedure to determine one or more specified characteristics of a material or product. (E 1187, ISO Guide 2.A)

Procedure, *n*—specified way to perform an activity. (ISO 8402)

Proficiency Testing, *n*—determination of laboratory testing performance by means of interlaboratory test comparisons. (E 1187, ISO Guide 2)

Quality Assurance, *n*—all the planned and systematic activities implemented within the quality system, and demonstrated as needed, to provide adequate confidence that an entity will fulfill requirements for quality. (E 1187, ISO Guide 2)

Quality Management—all activities of the overall management function that determine the quality policy objectives and responsibilities, and implement them by means such as quality planning, quality control, quality assurance and quality improvement within the quality system. (E 1187, ISO Guide 2)

Quality Management—The responsibility of all levels of management but must be led by top management. Its implementation involves all members of the organization. In quality management, consideration is given to economic aspects.

Quality Manual, *n*—a document stating the quality policy, quality system and quality practices of an organization. (E 1187, ISO Guide 17025)

Reference Material, *n*—a material or substance, one or more of whose property values are sufficiently homogeneous and well established to be used for the calibration of an apparatus, the assessment of a measurement method, or for assigning values to materials. (E 1301, ISO Guide 30)

Reproducibility, *n*—the closeness of agreement between test results obtained under reproducibility conditions (that is, conditions under which test results are obtained with the same test method on identical material in different laboratories). (E 1301, E 456)

Sample—a group of items, test results or portions of material, taken from a large collection of items, test results or portions of material, which serves to provide information that may be used as a basis for making a decision concerning the larger collection. (E 456)

Sample—One or more sampling units taken from a population and intended to provide information on the population. (ISO 3534-93)

Sampling, *n*—(The) process of drawing or constituting a sample. (E 1402, ISO 3534-93)

Selectivity, *n*—Qualitative – the extent to which other substances interfere with the determination of a substance according to a given procedure. (Eurachem, IUPAC)

Standard Operating Procedure (SOP), *n*—Written procedures that describe how to perform certain laboratory activities. (UNDCP)

Test, *n*—technical operation that consists of the determination of one or more characteristics of a given product, process or service according to a specified procedure. (E 1187, ISO Guide 2)

Traceability—the ability to trace the history, application, or location of an item or activity and like items or activities by means of recorded identification. (E 1187)

Traceability—Property of the result of a measurement or value of a standard whereby it can be related with a stated uncertainty, to stated references, usually national or international standards (i.e. through an unbroken chain of comparisons). (Eurachem, ISO/IEC Guide 30 – 1992, 3.8)

Validation, *n*—confirmation by examination and provision of objective evidence that the particular requirements for a specific intended use are fulfilled. (ISO 8402-94)

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