



Designation: E2329 – 10

Standard Practice for Identification of Seized Drugs¹

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1. Scope

1.1 This practice describes minimum criteria for the qualitative analysis (identification) of seized drugs.

1.2 Listed are a number of analytical techniques for the identification of seized drugs. These techniques are grouped on the basis of their discriminating power. Analytical schemes based on these groupings are described.

1.3 Additional information is found in Guides E1968, E1969, and E2125 and Practices E2326 and E2327.

2. Referenced Documents

2.1 ASTM Standards:²

E1968 Guide for Microcrystal Testing in Forensic Analysis of Cocaine

E1969 Guide for Microcrystal Testing in Forensic Analysis of Methamphetamine and Amphetamine

E2125 Guide for Microcrystal Testing in Forensic Analysis of Phencyclidine and Its Analogues

E2326 Practice for Education and Training of Seized-Drug Analysts

E2327 Practice for Quality Assurance of Laboratories Performing Seized-Drug Analysis

2.2 Other Document:
Scientific Working Group for the Analysis of Seized Drugs—Recommendations for: Education and Training, Quality Assurance, Methods of Analysis

3. Significance and Use

3.1 These are minimum requirements applicable to the identification of seized drugs.

3.2 It is recognized that the correct identification of a drug or chemical depends on the use of an analytical scheme based on validated methods and the competence of the analyst. It is expected that in the absence of unforeseen error, an appropriate

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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.

analytical scheme effectively results in no uncertainty in reported identifications.

3.3 This practice requires the use of multiple uncorrelated techniques. It does not discourage the use of any particular method within an analytical scheme. Unique requirements in different jurisdictions may dictate the actual practices followed by a particular laboratory.

4. Categories of Analytical Techniques

4.1 For the purpose of this practice, techniques for the analysis of drug samples are classified into three categories (see Table 1) based on their maximum potential discriminating power. However, the classification of a technique may be lower, if the sample, analyte, or mode of operation diminishes its discriminating power.

4.1.1 Examples of diminished discriminating power may include:

4.1.1.1 An infrared spectroscopy technique applied to a mixture which produces a combined spectrum, and

4.1.1.2 A mass spectrometry technique which only produces molecular weight information.

5. Identification Criteria

5.1 This practice requires that the following minimum criteria be followed when making analytical identifications:

5.1.1 When a validated Category A technique is incorporated into an analytical scheme, then at least one other technique (from either Category A, B, or C) shall be used.

5.1.2 When a Category A technique is not used, then at least three different validated techniques shall be employed. Two of the three techniques shall be based on uncorrelated techniques from Category B.

5.1.2.1 For cannabis, macroscopic and microscopic examinations will be considered as uncorrelated techniques from Category B when observations include documented details of botanical features.

5.1.2.2 For exhibits of cannabis that lack sufficient observable macroscopic and microscopic botanical detail (for example, extracts or residues), Δ^9 -tetrahydrocannabinol (THC) or other cannabinoids shall be identified utilizing the principles set forth in 5.1.1 and 5.1.2.

5.1.3 An identification of botanical material may be made utilizing morphological characteristics (Category B) alone provided sufficient botanical features appropriate for identification