

## Standard Guide for Analysis of Clandestine Drug Laboratory Evidence



### WHAT IS AN AAFS STANDARD FACTSHEET?

The AAFS produces clear, concise, and easy to understand factsheets to summarize the contents of technical and professional forensic science standards on the OSAC Registry. They are not intended to provide an interpretation for any portion of a published standard.

### WHAT IS THE PURPOSE OF THIS STANDARD?

This standard provides guidance on the chemical analysis of items and samples that may be encountered in a suspected clandestine drug laboratory.

Sample selection, analysis, and reporting are described in this document. Terminology and calculations that may be provided are also addressed.

The standard also describes the responsibilities of analysts and management, as well as training and safety considerations.

This guide does not address scene attendance or scene processing. Laboratory management shall ensure that chemical safety plans address hazards associated with clandestine laboratory evidence.

### WHY IS THIS STANDARD IMPORTANT? WHAT ARE ITS BENEFITS?

Adherence to these minimum standards establishes consistency between laboratories, improves efficiency of laboratory resources, and encourages general acceptance for the analysis of clandestine drug laboratory evidence.

This standard provides direction to the forensic drug analyst community regarding sampling, analysis, yield determination, and capacity calculations related to clandestine drug laboratory evidence.

Forensic seized drug laboratories are encouraged to meet these minimum standards.



### HOW IS THIS STANDARD USED AND WHAT ARE THE KEY ELEMENTS?

The qualitative and quantitative analysis of clandestine drug laboratory evidence can require different approaches. The primary purpose of the analysis is to prove or disprove allegations of clandestine drug syntheses. The analytical scheme utilized for the identification of organic compounds shall be based on the criteria set forth in [ASTM E2329-17](#) (Standard Practice for Identification of Seized Drugs). For inorganic materials, this standard describes five analytical groups, which consist of techniques with varying discriminating power.

Items seized at clandestine drug laboratories may be inherently hazardous. Caution must be exercised, and routine safety protocols may not be sufficient. Precautions should be taken that relate to the suspected manufacturing process. Items to select for testing should be based on their likelihood to contain finished product, intermediates, precursors, key reagents, and reaction mixtures.

Yield and capacity calculations can be performed using several approaches. They should be based on documented case information and be accompanied with an explanation of the limitations, assumptions, and considerations (e.g., the illicit drug being made, the synthetic route being utilized, equipment found at the site).

This is a guide standard, which means that additional procedural steps beyond those required in this standard may be necessary. Laboratories or forensic science service providers that are unable to meet the standards may use external resources to meet the requirements (e.g., outsourcing, partnerships).

