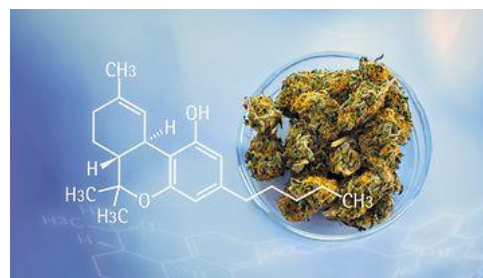


Industrial Hemp and Cannabinoid Testing at AST

Analytical Services Tasmania (AST) has recently gained NATA accreditation for testing cannabinoids in industrial hemp crops and hemp-based food products.

We use state-of-the-art instrumentation to separate and accurately quantify a total of 12 major and minor cannabinoids (see table below). We are able to easily meet the testing requirements for plants (<1% Total THC) and the Food Standards Code for both THC and CBD. Note that we are not able to test products related to the medical use of cannabis.



A complete cannabinoid profile from a single analysis

Our method employs Liquid Chromatography (LC) to separate structurally similar cannabinoids in both acidic and neutral forms, followed by Tandem-Mass Spectrometry (MS/MS) to provide unequivocal identification at very low detection levels. Because analysis by LC does not require heating, testing by this method provides a more accurate determination of the actual amounts of Δ 9-THC and THCA present in the sample in a single analysis, compared with GC-FID methodology¹.

| Compound | Abbreviation | Limit of Reporting | |
|--|----------------|--------------------|-----------------------|
| | | Plant (%w/w) | Food Products (mg/kg) |
| Cannabidiol | CBD | 0.01 | 0.05 |
| Cannabidiolic acid | CBDA | 0.01 | 0.05 |
| Total CBD ^ | Total CBD | 0.01 | 0.05 |
| Cannabichromene | CBC | 0.01 | 0.05 |
| Cannabidivarin | CBDV | 0.01 | 0.05 |
| Cannabidivarinic acid | CBDVA | 0.01 | 0.05 |
| Cannabigerol | CBG | 0.01 | 0.05 |
| Cannabigerolic acid | CBGA | 0.01 | 0.05 |
| Cannabinol | CBN | 0.01 | 0.05 |
| Tetrahydrocannabivarin | THCV | 0.01 | 0.05 |
| Δ 8-tetrahydrocannabinol | Δ 8-THC | 0.01 | 0.05 |
| Δ 9-tetrahydrocannabinol | Δ 9-THC | 0.01 | 0.05 |
| Δ 9-tetrahydrocannabinolic acid A | THCA | 0.01 | 0.05 |
| Total THC # | Total THC | 0.01 | 0.05 |

^ calculated from CBD and CBDA

calculated from Δ 9-THC and THCA

1. [Nei et al, The Role of Mass Spectrometry in the Cannabis Industry](#), *J. Am. Soc. Mass Spectrom.* Vol 30, pp 719-730, 2019



Please contact us if you would like more information regarding hemp testing:

- terpenes
- pesticides
- metals
- microbiological

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