

ADVISORY COMMITTEE FOR NOVEL FOODS AND PROCESSES

UPDATE ON ONGOING WORK BETWEEN THE FSA, UKAS AND LGC ON CBD AND OTHER CANNABINOIDS

Issue

1. As with many naturally derived plant extracts, cannabidiol (CBD) based products and extracts may contain several known components that can potentially be harmful for the consumer or cause the product to be classed as a controlled substance.
2. As such it is important to have reliable analytical methods to ensure that we are able to identify and quantify the cannabinoids present in CBD products with some confidence. There are currently no accredited methods available for the analysis of CBD or many other cannabinoids and the FSA has been working with a number of partners to facilitate improvements in this area.

Background

3. CBD was confirmed as a novel food in January 2019 and as yet, there are no authorised CBD products on the UK market. In February 2020, the FSA set a deadline of 31st March 2021 by which businesses already selling CBD must have submitted a dossier to the FSA which must be complete enough for the FSA to validate, enabling them to remain on the market. Any companies not achieving this will be required to remove their products from the market or face potential prosecution. Following validation, applications received will be presented to the ACNFP for consideration and risk assessment.
4. CBD is one of more than 113 well known cannabinoids. In the production process of CBD extracts, a purifying stage aims at minimising the presence of unwanted cannabinoids that may cause harmful and unwanted effects in the consumer. Amongst these cannabinoids lies tetrahydrocannabinol, or THC, which is known to cause psychotropic effects in consumers. Scientific literature suggests that the reported side effects of CBD-extract-based products occur due to THC contamination rather than CBD hydrolytic conversion in the stomach of the consumer¹.
5. In the UK, the Home Office (HO) classes any product that contains more than 1mg of THC per unit as a controlled substance and therefore appropriate licenses would be required to handle such products. LGC has worked collaboratively with BEIS, HO and FSA to provide informal guidance on the 1mg limit

LGC-led ring trial on the analysis of cannabidiol and controlled cannabinoids in food and cosmetic samples

¹ Lachenmeier, Dirk W et al. "Are side effects of cannabidiol (CBD) products caused by tetrahydrocannabinol (THC) contamination?" *F1000Research* vol. 8 1394. 8 Aug. 2019

6. The FSA has provided funding to the Laboratory of the Government Chemist (LGC), jointly with Home Office and the Office for Product Safety and Standards (OPSS), to conduct a ring trial, primarily in UK laboratories, in order to cascade a method for testing CBD and controlled cannabinoids in food and consumer products. A ring trial is a trial in which different laboratories undertake analysis of a standard sample to identify performance of an analytical method and reproducibility of results between laboratories.
7. The method cascaded by LGC is LC-MS and capable of detecting a range of controlled and uncontrolled cannabinoids. The trial will be completed by the end of March and to date 10 laboratories have signed up to take part.
8. Laboratories taking part are also invited to use their own methods in the ring trial, which may potentially provide additional information on the accuracy and robustness of wider methods of analysis for CBD being used.
9. The ring trial protocol is included as **Annex A**.
10. LGC have also recently published [guidance on analytical limits for controlled substances](#) which is relevant for cosmetic products as well and novel foods.

FSA collaboration with UKAS

11. The FSA is also working jointly with the UK Accreditation Service (UKAS), to explore routes to accreditation for CBD methods.
12. In August, UKAS hosted a webinar and subsequently two working group meetings which have been attended by laboratories, CBD applicants and FSA representatives and useful discussions have ensued.

Committee Action Required

- Members are primarily provided with this for information purposes only. However, we would welcome any comments or discussion points.

**Secretariat
January 2021**

Annexes to the dossier

Annex A: LGC protocol for the ring trial on the analysis of cannabidiol and controlled cannabinoids in food and cosmetic samples.