Summary of the dossier: Cannabidiol (CBD) Isolate from *Cannabis sativa* L.

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As a consortium of Food Business Operators, the partners of EIHA projects GmbH intend to market natural Cannabidiol (CBD), isolated from *Cannabis sativa* L. and highly purified, as a food supplement.

The Natural Isolate CBD (assay ≥ 98%), diluted in hemp seed oil (or other food-grade oils), is the subject of this application. The EIHA projects GmbH prepared this application in compliance with the Regulation 2015/2283 on Novel Food and following the requirements of Commission Implementing Regulation (EU) 2017/2469 of 20 December 2017 laying down administrative and scientific requirements for applicants referred to in Article 10 of Regulation (EU) 2015/2283 of the European Parliament and the Council on novel foods, the European Food Safety Authority (EFSA) Guidance on the preparation and presentation of an application for authorisation of a novel food in the context of Regulation (EU) 2015/2283 and EFSA's Administrative guidance on the submission of applications for authorisation of a novel food pursuant to Article 10 of Regulation (EU) 2015/2283.

The Natural Isolate CBD produced by the manufacturers and traded by companies under the EIHA projects GmbH is a highly pure CBD (≥ 98%) in hemp seed oil (or other food-grade oils). The Natural Isolate CBD and the final formulation in oil are characterised by various analytical methods and described by detailed specifications. CBD content in the final formulation is up to 10% in hemp seed oil.

From a nutritional perspective, the dilution in hemp seed oil makes the final products even more valuable for consumption as for the health benefits of the hemp seed oil. Hemp seed oil has a unique, essential fatty acid spectrum. It is a rich source of polyunsaturated omega-3 and omega-6 fatty acids, necessary for human health.

The products intended to be traded on the market by the food business operators comply with the specification agreed and voted by partners in the framework of this “Joint” Novel Food Application. The final formulation in oil is dispensed e. g. in flacons or capsules. EIHA projects GmbH undertakes the task to submit a Joint Novel Food application on behalf of EIHA partners to cover their products on the market and to optimise cost and time for all partners.

The toxicological assessment covers all the formulations which fall into this shared specification. The Natural Isolate CBD in hemp seed oil is intended to be consumed as a food supplement by the adult population and it is not designed for children, lactating or pregnant women. The toxicological evaluation considers the CBD equivalents of the formulations, and the recommended dose is given in CBD equivalents because CBD is the physiologically active molecule. Based on the single manufacturer’s oil preparation, the dosage is expressed in CBD equivalent. CBD has been an object of a wide range of studies due to its use as an API or a food supplement.

CBD does not show toxicity when administered accordingly to the intended dose. In contrast to Delta-9-tetrahydrocannabinol (THC), CBD does not present a psychoactive profile, the reason why it is not considered a drug under the UN Conventions on narcotic drugs or on psychotropic substances. Moreover in 2018, the WHO Expert Committee on Drug Dependence (ECDD) concluded that, in its pure state, cannabidiol does not appear to have abuse potential or cause harm. Several published toxicology studies were considered to support the safety profile of CBD. Both animal studies and human studies were considered to support and justify the conclusions and its safety profile.

The Novel Food application's toxicological part is partially covered by literature and by toxicological studies carried out in certified laboratories. The chosen studies meet the EFSA Guidance Tier 1 requirements. Thus, genotoxicity and sub-chronic toxicity endpoints have been covered. The genotoxicity studies include a) the Bacterial Reverse Mutation Test (Ames Assay) -following OECD 471; and the In Vitro Mammalian Cell Micronucleus Test -following OECD 487. Tier 1 also requires a 90-day study (OECD 408) and the ADME study. The ADME part has been covered by literature while the new 90-day study was carried out. However, the optional analysis chosen within the 90-day study will allow some updates for the ADME evaluation as well (optional toxicokinetic analysis included in the package). To prior investigate some possible hormonal adverse effects or alerts, the basic 90-day study has been added of optional analysis which investigates hormones and reproductive parameters.

The risk assessment of the novel food submitted has been carried out starting from the results of the 90-day study. A No-observed-adverse-effect-level (NOAEL) has been defined and a safety assessment concluded taking into considerations available information on literature as well. An Acceptable Daily Intake (ADI) of 17.5 mg/day has been proposed. The Δ9-THC content never exceeds 0.10 % relative to the total-CBD content due to the specified level in the Natural CBD Isolate; consequently, the intake never exceeds 17.5 µg/day of THC, independent of the formulations' strength in CBD. The safe THC threshold of 70 µg/day per adult is never exceeded, in compliance with the EFSA opinion of 2015 and its derived Acute Reference Dose (ARfD) of 1 µg/kg body weight (bw).

The comprehensive production process is considered confidential and of the property of EIHA projects GmbH. In case of need, a non-confidential production process is given within the application. Compositional data, batches analysis and annexes specified in the cover letter of the application are considered confidential as well and owned by the partners of EIHA projects GmbH. Data protection, according to Article 26, is asked for the stability test generated by the applicant and for the experimental studies EIHA projects GmbH commissioned and owns (genotoxicity and sub-chronic toxicity).

The Natural CBD Isolate in oil is considered safe for the adult human population (excluding lactating and pregnant women) at the dose of 17.5 mg/day (expressed as CBD equivalent) and it is not expected to be nutritionally disadvantageous. Food business operators listed in this Joint Novel Food application are aware of the specifications reported in this application and comply with the mentioned statements.