



Wherever Cannabinoids Are Going,  
**We'll Be There**



# The Soul of a Pharmaceutical API Company

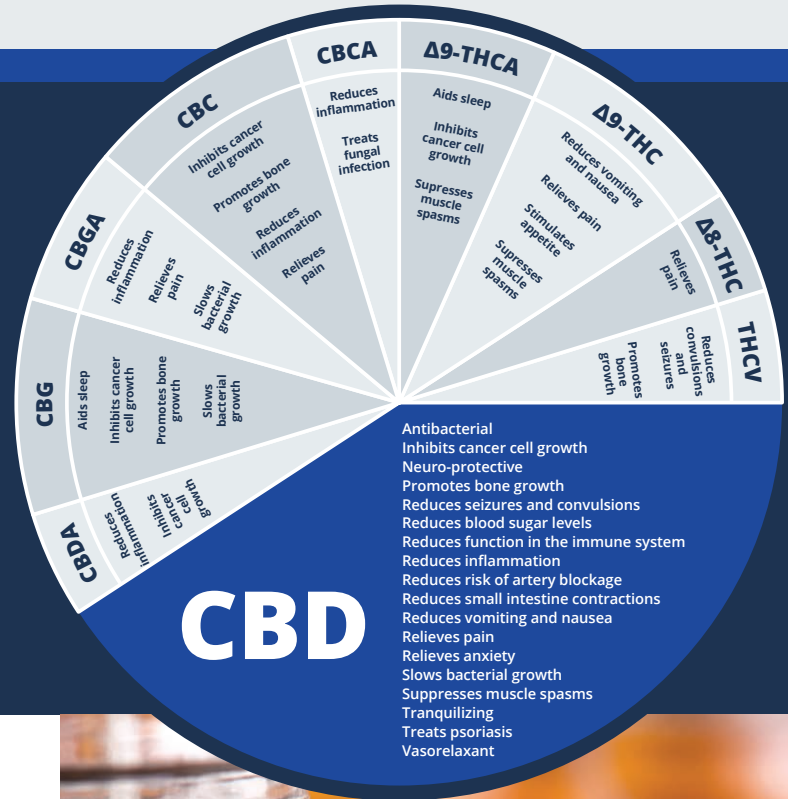
Purisys has more than a decade of experience developing and manufacturing cannabinoids – with a Drug Master File for  $\Delta 9$ -THC (dronabinol) API since 2007. Our personnel have a 40-plus year track record managing controlled substance APIs for

pharmaceutical production in accordance with international rules and global regulations. We offer technical support in every phase of the drug development process, from preclinical studies through commercialization of a wide variety of dosage forms and formulations.

## The Most Comprehensive Cannabinoid Portfolio on the Market

With a singular focus on the development, manufacture, and deployment of advanced cannabinoid ingredients, Purisys maintains the broadest cannabinoid portfolio on the market – with experience producing commercial quantities of high-quality ingredients that goes back over 10 years.

Today, Purisys produces all major and minor cannabinoids – more than 50 – as well as degradants, metabolites, and analytical standards.



## High-Purity Cannabidiol (CBD)

Purisys has been manufacturing cannabidiol since 2016 (DMF33223). Today, we have the ability to produce on the largest commercial scale. Our ultra-high purity CBD is attractive for drug development projects and falls significantly below the 0.3% THC limits set in the 2018 Farm Bill for use in consumer products. Purisys' patent-protected manufacturing process produces a consistently odorless, tasteless white powder highest-purity form of CBD that exhibits:

- No heavy metals (eg, lead) from soil
- No pesticide residues
- No environmental influences on quality such as rain, sunlight & soil nutrients
- No plant impurities to remove
- No microbial or mold proliferation

No structural (or stereochemical) differences exist between an active cannabinoid ingredient manufactured by Purisys and those that are chemically extracted and isolated from plants. They are – in effect – nature-identical. Purisys manufactures CBD according to cGMP (ICH Q7 and applicable sections of 21 C.F.R. Parts 210 and 211). We use validated analytical test methods and rigorous quality systems for this ingredient.





## The Creativity of a CPG Ingredient Innovator

Today's Purisys has invested significantly in the technologies and facilities required to commercialize cannabinoid-based consumer products in the future. Our team includes experienced professionals who remain at the forefront of ingredient development in consumer product categories, such as skin care, hair care, dietary supplements, food, beverage, and more. We understand the accepted path to formulating exciting new products with compelling consumer messaging and the importance of safety, transparency, and trust in building and protecting your brands.

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### State-of-the-Industry Innovation

Purisys is at the forefront of understanding the potential markets for cannabinoids. It has an active R&D program on the development of materials that take advantage of the latest science in the field. We have in-house product development experts and industry partnerships that cover a wide range of consumer applications. We can work with your R&D, product development, commercialization, and manufacturing teams to develop comprehensive solutions for new product introduction.

### Creating Great Consumer Experiences

Purisys has extensive background in the development of cannabinoid-based formulations that are safe, efficacious, and meet consumer expectations for taste, appearance, and quality – addressing such issues as bioavailability, solubility, texture/mouthfeel, stability, and shelf life. We partner with some of the industry's leading experts in the development of delivery systems and have an existing knowledge base of applications data.

### Ingredient Supply for Every Phase of Your Project

From research quantities to multiple tons, Purisys is a manufacturing resource for your entire product development and commercialization portfolio. Our experience as a pharmaceutical manufacturer means that you are getting consistent supplies of the highest quality materials on the market – along with strong regulatory support for minimum delay or complications.



## Let us help you build and protect your brands

At Purisys, our goal is to be recognized as the global market and thought leader for advanced cannabinoid ingredients and solutions. We offer the broadest portfolio and relentlessly deliver the highest standard of purity, quality and capacity of cannabinoid isolates.

As the global markets for consumer cannabinoid products develop, Purisys is positioned to help you innovate and develop new concepts – and to support you through commercial introduction and continuing supply of high-quality ingredients that you – and your customers – can trust.

At Purisys, we want to develop a dialogue with our industry and markets – and to support you as you look to innovate and create new ways to contribute to human health and happiness.

Whether you're interested in innovation, clinical supply, formulation development – or more – please reach out to us.

### Purisys

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This information is based on our present knowledge and is intended to provide notes on our products and their uses. It should not be construed as guaranteeing specific properties of the products described or their suitability for a particular application. Any existing industrial property rights must be observed. The quality of our products is warranted under our General Conditions of Sale.

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