



# Cannabinoids

## Clinical to Commercial Supply of High Purity Synthetic APIs

- Global supply chain security, from raw materials through large-scale GMP production
- Superior quality cannabidiol and dronabinol APIs with good stability profiles
- A team to help you get to market



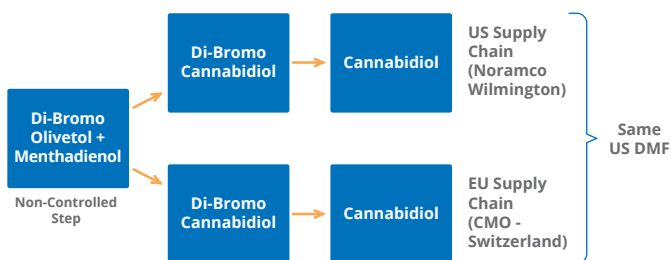
# Integrated Supply Chain Dedicated to Cannabinoids

Leveraging decades of expertise in controlled substance development, licensing and scale up, Noramco offers pharmaceutical companies a fully integrated supply chain for synthetic cannabinoid-based APIs.

- Multiple key raw material suppliers are qualified, which gives us access to reliable supplies.
- A closed-loop API production and management system ensure superior quality and stability of our products.
- API production facilities in both the United States and Europe enable us to meet your demand for large-scale commercial supply.

## High Purity Synthetic Cannabidiol free of THC

Our patent-protected route to synthetic cannabidiol provides the assurance your API is free of THC.



- An excellent purity profile along with good stability allows storage at 25°C with retest dating at 18 months
- Technical package is available with US DMF filing (Third Quarter 2018)
- Large-scale GMP production available from facilities in the United States and Switzerland
- Reference standards available

## High Purity Synthetic Dronabinol

With more than ten years of expertise in dronabinol, we are expanding our capability to better support your commercial requirements.

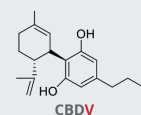
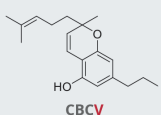
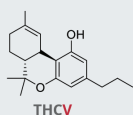
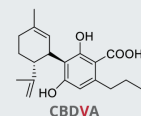
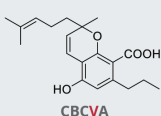
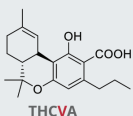
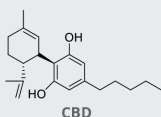
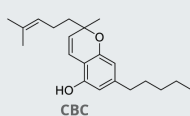
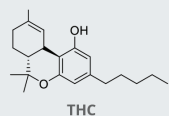
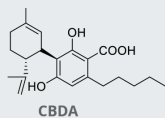
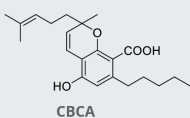
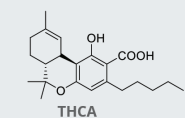
- 20% dronabinol in ethanol (GMP material) for clinical trials
- High purity synthetic material using existing commercial process
- Technical package available (Q2 2018)
- DMF (Q4 2018)
- Reference standards available

- 20% dronabinol in sesame oil with US DMF filing (20682)
- Technical package, and open part of DMF, available today
- High-purity synthetic material with good stability profile
- Storage conditions at 5°C with retest dating at 36 months
- Reference standards available

## A Dedicated Team to Help you get to Market

Are you evaluating a range of cannabinoid analogs for therapeutic applications? Ask us how we leverage more than 30 years of expertise in controlled-substance development, licensing and scale up to help you get to market. We offer:

- Dedicated teams with the skills you require to secure cannabinoid APIs, from clinical-scale to commercialization
- Full support with DEA, FDA & other regulatory bodies (e.g.: TGA; Home Office; SwissMedic)
- International logistics team with technical and commercial presence in Europe & USA
- Long-term capacity planning with life-cycle commitment to cost reduction
- Full portfolio of API impurity and reference standards
- A range of cannabinoids and varins you may require for development and scale up, including:





## The Noramco Difference

Find out how a controlled-substance supply chain development program from Noramco helps you go to market faster, with less complexity. Partner with us from the API development phase, to a pre-formulation solution, and obtain the benefits of an integrated team that support best overall outcomes.

### **Noramco Inc.**

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