



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



Noramco™
Leader in Controlled Substances

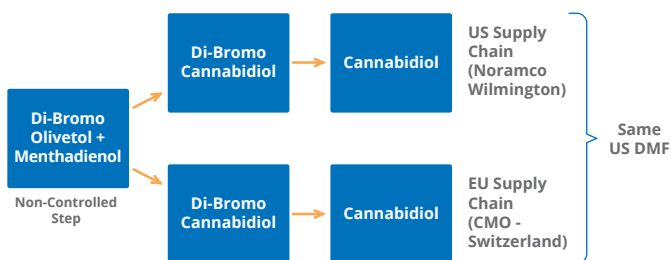
Integrated Supply Chain Dedicated to Cannabinoids

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.

- A highly reliable supply chain which includes multiple key raw material suppliers.
- A closed-loop API production and management system ensures 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 and remain compliant with government agency regulations (e.g. DEA Import/Export rules).

High Purity Synthetic Cannabidiol (low ppm THC levels)

Our patent-protected route to synthetic cannabidiol provides the assurance your API has low ppm levels of THC.



- An excellent purity profile along with good stability allows storage with retest dating at 18 months.
- Technical Package is available; IND suitable DMF filed Q1 2019; US DMF filing scheduled by end 2019.
- Large-scale GMP production available from facilities in the United States and Switzerland.
- Reference standards (including key degradation products and metabolites) 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.

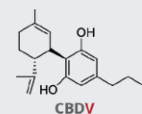
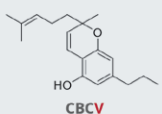
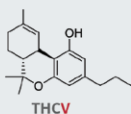
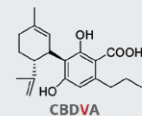
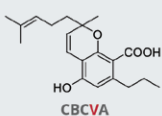
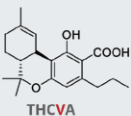
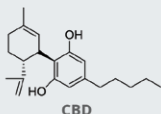
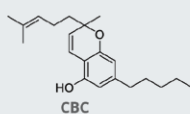
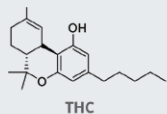
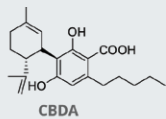
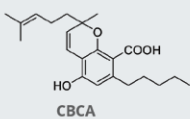
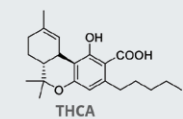
- 20% dronabinol in ethanol (GMP material) for clinical trials
- High purity synthetic material using existing commercial process
- Technical package available
- US DMF filing scheduled in 2019
- Reference standards (including key degradation products and metabolites) available

- 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 (including key degradation products and metabolites) 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.

503 Carr Road, Suite 200
Wilmington, DE 19809

noramco.com



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.

Copyright © 2019 Noramco. All rights reserved.

01302019v2