



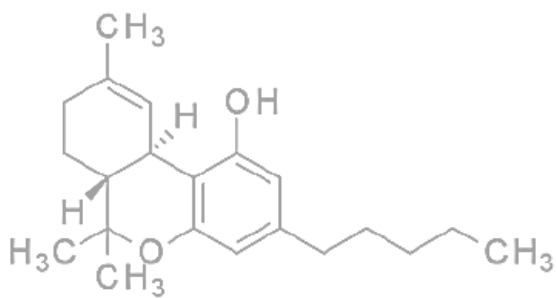
## ADM-SIO Pharmaceutical oils for Cannabinoid drug products



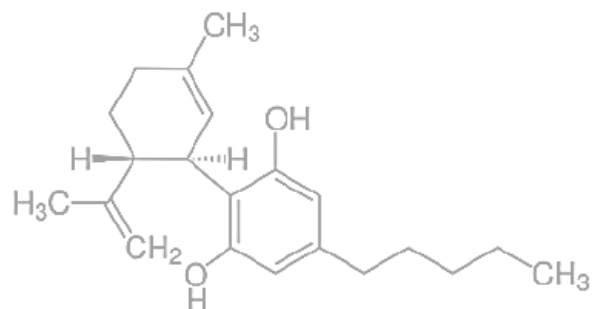
### Medicinal Cannabinoids

There are currently more than 150 cannabinoid-based products under development in the world. The first US FDA approved product Epidiolex<sup>®</sup>, isolated from the cannabis plant and indicated for severe forms of epilepsy is formulated with **Sesame oil**. Other approved products like Marinol<sup>®</sup> are also formulated with oils.

Cannabinoids, generally, have a very low solubility in water and are highly lipophilic. Among the hundreds of phyto-cannabinoids in cannabis, tetrahydrocannabinol (THC) and cannabidiol (CBD) have been studied in many different therapies.



Tetrahydrocannabinol (THC)



Cannabidiol (CBD)



## ADM-SIO Pharmaceutical oils for Cannabinoid drug products



### Our portfolio for the formulation of your Cannabinoids drug products

Refined Sesame Oil IV-1  
Refined Olive Oil IV  
Refined Olive Oil PharmaPlus

Our highly purified oils are fully compliant with the **European Pharmacopoeia (EP)** and **United States Pharmacopeia/National Formulary (USP/NF) monographs** and general notices intended for use in the manufacturing of pharmaceutical products.

**Manufactured under cGMP** according to ICH-Q7 Good Manufacturing Practice Guidance for Active Pharmaceutical Ingredients or to the Joint IPEC-PQG Good Manufacturing Practice Guidance for Pharmaceutical Excipients.

**Supported with Certificate of Suitability to the European Pharmacopoeia (CEP)** granted by the European Directorate for the Quality of Medicines & Healthcare (EDQM) and/or with **Drug Master File (DMF) type IV** for excipients submitted to the U.S. Food and Drug Administration (FDA).

### ADM-SIO oils can be used in dosage forms such as:

