University of Central Lancashire
UCLan

Intellectual Property Portfolio

WO2019069096

Converting oils into free-flowing powders

The University of Central Lancashire is proud to present its portfolio of Intellectual Propertywhich covers a wide range of categories, including: Biomedical Sciences, Electrical and Electronic Engineering, Mechanical Engineering, Forensic Sciences, Nuclear Sciences, Materials and Nano-Materials Technologies, Tribology Technologies, Pharmacy and 3D Printing Technologies.

Innovation at UCLan
Capturing the Value of Intangible Assets

Converting oils into free-flowing powders

Details

Title of the patent: Solid composition

Legal Status:

China-	Pending
USA-	Pending
Europe-	Pending
India-	Pending
Chile-	Pending
Peru-	Pending

Published as:	WO2019069096
Status:	Available for exploitation
Priority date:	6th October 2017

Introduction

Many pharmaceuticals, nutraceuticals, food supplements, cosmetics, agricultural products and pesticides, constitute of liquid oils and their components or oily bioactives including marine and essential oils. In their liquid form these oils provide handling and transportation problems and some of them are unpleasant in taste and odour leading to unpalatability and poor consumer/patient acceptability. There is therefore a need for a simple and rugged technology for converting these oils into a more manageable form, like a solid powder form, which will improve the ease of handling, mask the taste, provide improved palatability and improve their stability.

UCLan research has developed a method of converting oils into powders in a quick process which can allow for the manufacture of these powders easily and safely on an industrial scale. The powders are non-toxic, easier to handle and suitable for consumption by humans and animals alike.

Description

Our research provides a method of making oils into powders so that they can be more easily handled and may be consumed by humans and/or animals more easily in a form that masks the unpleasant taste and/or smell of the oils. It may also enable the oils to be consumed as tablets, rather than capsules.

The methods of manufacturing the powders entails the use of relatively readily accessible materials in a process which is well suited to scale up in a relatively cost-effective manner. UCLan research have engaged with the Centre for Process Innovation (CPI) to successfully produce a batch of approximately 10kg of the oil so that the processes can be evaluated and shown to be fully scalable.

CPI have also provided an evaluation of the methods proposed and provided recommendations and reviews of potential plant arrangements that may be used in a scaled-up apparatus for the processes required to produce the powders.

Core Advantages

The methods that UCLan have developed will allow for oils to be converted into powders. This will be of benefit because the powders will be more easily handled. Similarly, the oils will be more pleasant to consume and the methods will enable extra flexibility in the provision of these oils to consumers.

Application

Nutraceutical providers can use this method to enable oil-based materials to consumers more easily.

Animal feed can be enhanced with powders containing oils that animals require to remain healthy.

The methods may also be extremely useful in the pharmaceuticals and cosmetics industries.

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The full patent submission can be seen at:

https://worldwide.espacenet.com/publicationDetails/biblio?CC=WO&NR=2019069096A1&KC=A1&FT=D

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For more details about a specific UCLan technology and answers to general questions about thispatent or collaborating with us or licensing our Intellectual Property, please contact

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