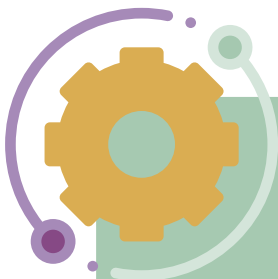




**“Method for obtaining controlled released microspheres for sensitive substances”**

MX/a/2014/003939



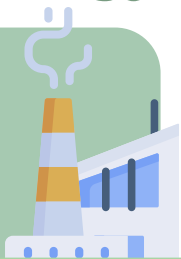
**Technology description**

The competitive advantages of the technology are:

- a) A new way to administer sensible drugs by oral route.
- b) The dosage form gives thee effects: controlled release, bioadhesion and drug protection.
- c) The drug is released directly to the GI mucosae (unidirectional system).
- d) The system can be prepared by conventional pharmaceutical process with high potential of scale-up

**Applications, usage and benefits of the technology**

This invention concerns to a novel oral pharmaceutic-system to administer sensible therapeutic drugs which degrade by the inherent properties of the GIT such as pH, enzymatic activity, etc. The proposed dosage form consists of a hemispherical tablet formed by a bioadhesive polymer partially coated (one plane face exposed) with an impermeable film. Thus, the tablet can adhere on the GI mucosae promoting unidirectional controlled release directly on the absorption site and also, avoiding the contact with GI fluids due to the impermeable coating. The system is ideal for sensible drugs as peptides, proteins, nucleic acids, genes, vaccines and in general sensible small drugs.



**Technology readiness Level**

The tablet has been produced at laboratory level with hydraulic presses and pan coating systems (rotatory cylinder). The dosage form showed controlled release for a model peptide (leuprolide) without desintegration and in vitro bioadhesion to GI mucosae.

**Market information**

There is not a similar dosage form in the market. Different unidirectional systems have been proposed and patented but in general requires special manufacture processes.

