

PRESS RELEASE

A new big discovery from the Bio-on laboratories: also from the used cooking oil comes the bioplastic

- Waste oil is added to the "raw materials" already used to produce Bio-on bioplastic: beet molasses and sugar cane, fruit and potato wastes, carbohydrates in general and crude glycerol.
- A new discovery that transforms a waste element, which today has high disposal costs and a huge environmental impact, into a "raw material" for the production of bioplastics.
- For the first time the carbon source that feeds the Bio-on bioplastic production process is of a lipid nature.
- The discovery of Bio-on researchers allows to tap into the huge quantities of waste frying oil that are produced in particular in North America and Asia.

BOLOGNA 10th September 2018 - **Bio-on**, listed on the AIM segment of the Italian Stock Market - Borsa Italiana and operating in the sector of bioplastic of high quality, presents a new big discovery: it is possible to use waste cooking oils for the production of Minerv PHAs, the revolutionary biopolymer of Bio-on, organic and 100% biodegradable.

"This important news is the result of two years of research activities and allows Bio-on to draw on the enormous quantities of this waste - explains Marco Astorri, President and CEO of Bio-on - especially in markets such as North America and Asia, where the consumption of fried foods is high and the amount of exhausted oil exceeds, according to our estimate, one billion liters per day. A waste product, which must be disposed and treated with high costs, also environmental, becomes a "raw material" to feed the bacteria that produce PHA bioplastics according to the completely natural Bio-on process".

The waste cooking oil is added to the "raw materials" already used to produce Bio-on bioplastics (beet molasses and sugar cane, fruit and potato wastes, carbohydrates in general and crude glycerol) but, for the first time, the carbon source which feeds the biopolymer production process is of a lipid nature. Thanks to a preventive treatment systems for exhausted frying oil, the bioplastic produced has the same characteristics as that generated from other wastes, co- and by-products of agro-industrial productions. This discovery is made by Business Unit **RAF** (**Recovery and Fermentation**) in the new Bio-on plant in Castel San Pietro Terme, Bologna Italy.

As is known, all the **Minerv PHA bioplastics (polyhydroxyalkanoates)** developed by Bio-on are made from renewable plant sources (and now also lipid) without any competition with the food chains. They guarantee the same thermo-mechanical properties of conventional plastics with the advantage of being eco-friendly and 100% naturally biodegradable. In addition, they offer application possibilities, even completely unpublished, in sectors where traditional plastics are not used.

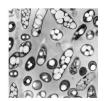


bio-on/raf

Recovery and Fermentation







Press informations

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Bio-on S.p.A.

Bio-on S.p.A., an Italian Intellectual Property Company (IPC), operates in the bioplastic sector conducting applied research and development of modern bio-fermentation technologies in the field of eco-sustainable and completely naturally biodegradable materials. In particular, Bio-on develops industrial applications through the creation of product characterisations, components and plastic items. Since February 2015, Bio-on S.p.A. has also been operating in the development of natural and sustainable chemicals for the future. Bio-on has developed an exclusive process for the production of a family of polymers called PHAs (polyhydroxyalkanoates) from agricultural waste (including molasses and sugar cane and sugar beet syrups). The bioplastic produced in this way is able to replace the main families of traditional plastics in terms of performance, thermo-mechanical properties and versatility. Bio-on PHAs is a bioplastic that can be classified as 100% natural and completely biodegradable: this has been certified by Vincotte and by USDA (United States Department of Agriculture). The Issuer's strategy envisages the marketing of licenses for PHAs production and related ancillary services, the development of R&D (also through new collaborations with universities, research centres and industrial partners), as well as the realisation of industrial plants designed by Bio-On.

<u>Issuer</u>

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