



**PRESS RELEASE**  
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**Sectors:** Industry / Household packaging / Green technology  
Large retailers / Wholesalers / Distributors  
Small shops / Food shops

**THE SPHERE GROUP CALLS FOR THE GREATEST VIGILANCE REGARDING THE INTERPRETATION OF THE  
PLYMOUTH UNIVERSITY STUDY ON THE DEGRADATION OF DIFFERENT PLASTICS.**

The study "*Environmental deterioration of biodegradable, oxo-biodegradable, compostable and conventional plastic carrier bags in the sea, soil, and open-air over a 3 year period*" was recently published by the University of Plymouth (UK). It is often presented as indicating that biodegradable and compostable bags do not offer environmental benefits. Faced with these misinterpretations, often repeated by the media, it is urgent to clarify the reality of the biodegradability of films that comply with the EN13432 standard, a standard that has been a benchmark for industrial composting throughout Europe for more than 20 years.

**A harmful amalgam around the word "biodegradable"**

"Compostable" bags are the only ones that meet recognized standards of compostability and biodegradability (EN13432) that verify all of the following: the non-toxicity of the components, disintegration within 3 months in industrial composting, complete biodegradation within 6 months and non-toxicity of the compost produced. In addition, a certification label such as OK COMPOST guarantees that these characteristics have been checked by a third-party organisation.

These "compostable" bags have nothing in common with the other bags included in the British study: the "oxo" bags which, at best, will split up but whose fragments are not digested by micro-organisms or the "biodegradable" bag, which refers only to a measurement standard but does not indicate any threshold to be reached.

**A complete rift between the study and its interpretation**

It has often been written or heard that this study shows that there are no significant differences between the bags studied. That is simply not true.

The study itself indicates, for example, that only the compostable bag is too weak to contain anything after 27 months in the soil, while all other bags continue to fulfill their original function. Another example: only the compostable bag shows complete disintegration in air and water.

**A study based on the measurement of the physical resistance of a bag**

This study focuses only on the physical deterioration of the bags. It is unfortunate that it does not include an analysis of biodegradation (i.e. digestion by micro-organisms) because only biodegradation ensures that the fragments do not remain in nature for decades or even centuries as is the case for polyethylene fragments, whether they come from conventional polyethylene films or from additive "oxos" films. Indeed, the latter break down into particles so fine that they are invisible to the naked eye but are still present and therefore pollute the soil. They are neither bio-based nor biodegradable or compostable according to the standards in force (EN 13432 or NF T51800). These plastics have been banned in France by the Energy Transition for Green Growth Act (2015 LTECV) for packaging and bag applications (article 75, II) and will be banned at European level (SUP Directive).

There is a major difference between disappearing a few months, a few years, a few decades or even a few centuries!

### **A special French feature: the NF T 51-800 home composting standard**

The "Fruit and Vegetables" bags available in France are not only industrially compostable but also compostable "at home" in accordance with the NF T51-800 standard (imposed by the 2015 LTECV) will specific checks on: the non-toxicity of the components, the disintegration within 6 months in domestic composting, the complete biodegradation within 12 months and the non-toxicity of the compost produced.

This means that all tests are done at 25°C, a temperature much closer to the natural environment than the 60°C that corresponds to industrial composting conditions.

The "compostable" bag tested in this English study only meets the industrial composting standard.

**For all these reasons, it is not scientifically conceivable to lump certified compostable films with traditional films that do not biodegrade and with products that claim to be "biodegradable" but are not.**

**Let us never forget that a conventional or oxo-additivated polyethylene film will always be present in the marine environment or on land, in whole or in particles, for many decades and probably for several centuries.**

This is why SPHERE will very soon publish an information report on biodegradable and compostable bioplastics, written in collaboration with Nathalie Gontard (research director at INRA), Stéphane Bruzard (professor at the University of South Brittany) and Jean-François Ghiglione (research director at CNRS). This report will provide an overview of scientific knowledge on biodegradable and compostable bioplastics. It will explain how these new materials represent an interesting solution to fight against plastic pollution and improve our management of waste.

### **About SPHERE**

SPHERE is a family-owned French group founded in 1976. It is the leading European company of household packaging, present in three markets: consumer, professional and local authorities, and producer of bioplastic resins.

Since its creation, SPHERE has always had the following objectives:

- Reduce the volume of virgin plastic used in its products and replace it with recycled materials;
- Develop new biodegradable and compostable materials;
- Use bio-based raw materials.

It has been involved for more than 20 years in the research and development of increasingly environmentally friendly materials.

With 15 production sites in Europe, of which 8 are located in France, the group has an annual production of 150,000 tonnes. In 2019, the group SPHERE expects to achieve turnover of circa 600 million euros with 1450 employees.

The SPHERE group markets and produces: refuse bags, fruit and vegetable bags, freezer bags, films and papers for food contact, aluminium trays and foil.

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