

COMPOSTING DEGRADATION AND TERRESTRIAL ECOTOXICITY OF PVA/CH – A BIODEGRADABLE AND SOLUBLE POLYMER

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ABSTRACT

Lešinský D. & Fritz J.: **Composting degradation and terrestrial ecotoxicity of PVA/CH – a biodegradable and soluble polymer**

More environmentally friendly products are a necessity and a challenge for society in the 21st century. Biologically degradable plastics (BDP) as an alternative to conventional plastics are brought up more and more as an issue in discussions, research, development and also practical usage. They can improve the environmental profile of different products and/or solve some difficult problems in the fields of agriculture and medicine, in the packaging industry, and above all in waste management.

A new material, a water soluble plastic blend called PVA/CH, was developed in Slovakia. This study presents a survey of international standards and results of biodegradation tests of this plastic in the terrestrial environment. The results show that collagen hydrolysate has a positive influence on degradation, but measurable toxicity of the detected collagen and relatively low biological degradability of PVA was observed in tested conditions.

Key words: biodegradable polymer, biodegradability, plastic degradation, biodegradation standards, ecotoxicity