

A review of the toxicity of triazole fungicides approved to be used in European Union to the soil and aqueous environment

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Abstract. This review provides the summarized current knowledge on the degradation and effects on the non-target organisms from soil and aquatic environment of the triazole fungicides approved to be used in most of the European Union also taking into account stereospecific differences. Synthesized data reveal that triazole fungicides are usually persistent in aqueous environment and soil, and manifest moderately acute and chronic toxicity against the organisms living in these environments. Furthermore, the enantiomers of triazole fungicides proved to have distinct distribution and effects on these environments. These data are important for assuring a sustainable agriculture by production and use of single-stereoisomer and/or encouraging a management of agricultural crops with minimum effects on environment.

Keywords: degradation; acute and chronic toxicity; fish; crustaceans; aquatic invertebrates; algae; aquatic plants; earthworms; stereoisomers.

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