RISK INDICATORSOF THE NANOPARTICLES-A DECISION MAKING PROCESS AIMING TO SUPPORT THE NANOMATERIALS DEVELOPMENT

Katia Regina Evaristo Jesus[1], Karen Cristina Massini[1]

[1]Embrapa Environment

e-mail: katia.jesus@embrapa.br

Nanotechnology allows us to develop high quality products with wide application in agriculture, environmental protection, among others. However, some questions arose about the safety of these products. Therefore, criteria to assess the safety of nanoproducts, especially for those that already are on the market has fundamental importance. The hazard or risk identification aims to identify potential adverse effects on the health or the environment that are associated with exposure to a biological, physical or chemical agent. Thus, this work presents some key indicators to assess the risk potential of nanoparticles available today. These indicators were developed by a multidisciplinary team of experts gathered research project coordinated and financed by Embrapa (Rede AgroNano) from technical variables formulated and grounded in the scientific literature and reports from international agencies. Risk indicators were validated remotely by experts from various fields of development and application of nanotechnology through a questionnaire developed according to the Delphi technique, which was made available on the website of Embrapa Environment. For the construction of this questionnaire was used Limesurvey, an open source software developed in PHP and using MySQL database. After statistical and technical analysis this information was validated by experts and stakeholders in technical workshops. According to them, these indicators represent the most critical aspects to the development of nanotechnology. These indicators are intended to help developers of these technologies to reassess the methodologies used for the development of nanotechnologies in order to mitigate a potential risk.

DIETZ, T. Methods for analyzing data from delphi Panels: some evidence from a forecating study. Technological Forecasting & Social Change, v. 31, p. 79-85, 1987.

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