



Department of Functional Biology: UNIVERSITY OF VALENCIA

LABORATORY OF ECOTOXICOLOGY & ENVIRONMENTAL QUALITY

BY: PROF. DR. ENRIQUE MOLINER-ANDREU, DEPARTMENT OF ANIMAL BIOLOGY CHAIRMAN AND ECOTOXICOLOGY AND ENVIRONMENTAL QUALITY LABORATORY DIRECTOR, UNIVERSITY OF VALENCIA

TECHNICAL REPORT

As required by the company Bio Energy Systems, s.l. (known as VANEX in the UK) different ecotoxicological tests (acute tests static) with different bio-indicator organisms were carried out.

Those organism are representative of the ecological status and condition of the other organisms constituent of the biological communities of the environment in which they live. Therefore, they are used as means to assess such impacts at the community and ecosystem level without evaluating the effects on every single species of the ecosystem.

The international scientific community recognizes as specifically representative of continental aquatic ecosystems those organism used as indicators this study, which were:

- Nannochloris
- oculata
- Daphnia magna
- Brachionus calyciflorus
- Thamnocephalus platyurus
- Salmo trutta (Rainbow Trout)
- Anguilla anguilla (European eel)

Acute tests conducted with *Salmo trutta* (rainbow trout) and fish *Anguilla anguilla* (European eel) produced a colony of exposed individuals who remained in quarantine to assess their subsequent survival.

After a period of forty-five days from introduction into the tanks, with a closed water cycle, no mortality was detected in either species.

The acute toxicity produced by VANEX (Also known as Espazyme) in all organisms tested was less than 1 g/L, so it is considered NON-TOXIC to the species used (micro and macrofauna and microvegetation).

Therefore, it is clear from the results of our study, that the VANEX (Espazyme) product presents no risk to the organisms studied and consequentially, no risk to the rest of the micro-and macrofauna or native vegetation.

#### Contact details

Valencia, 18<sup>th</sup> of May 2006 School of Biological Sciences. "Jerome Muñoz."  
Research Building. Andrés Estellés Ave, Burjassot Campus, BURJASOT (Valencia) Spain