METHOD OF ELIMINATING OIL FILM POLLUTION ON THE WATER AREA

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The method of using the biopreparation – a sorbent and destructor of oil hydrocarbons which block oil pollution of the aquatic environment in the shortest possible time prevents spreading and eliminates it with minimum ecological loss.

According to the method the preparation is applied to the polluted water surface as a thin film. The first sorptive effect appears immediately. After sorption of the oil products the biopreparation does not need to be collected and the destruction of oil products occurs in natural conditions. The new generation biopreparation is made up of immobilized non-pathogenic *Pseudomonas fluorescens* bacteria – destructors extracted from the natural environment according to special technology on an organic substrate (peat). The biopreparation displays sorptive and destructive activity of oil hydrocarbons. The method is designated for use in natural conservation biotechnologies for protection of marine and fresh water bodies.

Nature conservation elaboration directed to providing ecological safety of the aquatic basin in extreme situations, tied with accidental oil spills is related to priority measures not only in Ukraine, but in international practice. It has been carried out at the level of invention and protected by patents in Ukraine. Technical and economic characteristics of biotechnology make it competitive in the global market for biotechnology similar purpose.

Comparative analysis made on the basis of patent search shows that according to all the features of technical decisions the produced biopreparation exceeds existing analogues in degree and rate of cleaning of the water surface from oil film pollution especially in extreme situations.

The elaborated microbe biotechnology for eliminating oil film pollution of the water surface is ecologically and economically feasible, and does not need expensive imported equipment and materials.