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**RISK ASSESSMENT TO WORKERS BY APPLICATION HERBICIDE BASED ON
ACTIVE SUBSTANCE PROPISOCHLOR, 720 G / L**

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Actuality. One of the leading directions of increasing productivity in the sustainability of agriculture at the modern stage is the use of intensive technologies for cultivation of agricultural crops. In most cases, intensive technologies as a mandatory method for weed control include the use of herbicides. Monitoring of specialists says that in the near future the world production of herbicides will surpass the production of other plant protection products - insecticides and fungicides.

To prevent unfavorable consequences during the circulation of new pesticides, hygienic research in a full-scale field experiment is mandatory in order to study the effect of the pesticide on workers, to minimize the negative impact on public health and the environment.

Objective: to scientifically assess the complex risk of exposure to the working herbicide based on the active ingredient propisochlor, 720 g / l.

Materials and methods. Sanitary and chemical, toxicological and hygienic. Statistical processing of results using MSExcelXP and Statistica 10.0 software products.

Results and discussion. The hygienic assessment of working conditions with the use of the herbicide (propisochlor, 720 g / l) was carried out under the conditions of the agro-industrial complex with tractor spraying of a steam field with a consumption rate of 3.0 l / ha. All operations were performed by the operator and the tractor driver, dressed according to the recommendations of the manufacturer's safety data sheet.

In drifts to the soil during processing, propisochlor was found on the leeward side in concentrations not exceeding hygienic standards (the APC of propisochlor in the soil is 0.24 mg / kg). As a result of the studies, it was found that the use of the herbicide at a maximum consumption rate of 3.0 l / ha will not cause soil contamination at a distance of 1 m, 3 m, 6 m from the sprayer on the windward and leeward sides. Warning signs about the use of the drug should be placed at the border of the areas treated and treated with the drug.

The risk of a negative effect of the substance upon contact with the skin surface was determined by comparing the actual dermatological exposure (mg / cm²) with the approximate permissible level of contamination of the skin (mg / cm²); the level of contamination of the skin, and the magnitude of the total risk for the operator of the sprayer and the operator-refueling tanker during cutaneous and inhalation exposure.

The magnitude of the risk of complex (inhalation and dermal) effects of propisochlor for the fueling operator is 0.0923, for the tractor driver 0.074, the hygienic standard is no more than 1.

Findings. Subject to the established agrotechnical and hygienic regulations for use, the results of the studies carried out made it possible to evaluate the herbicide based on the active substance propisochlor, 720 g / l as a drug with an acceptable risk for those working in the agro-industrial complex.