



Materials for the Justification of Hygienic Standards for the New Insecticide Seller 20 % Quality, In Some Environmental Objects

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Abstract: The main experimental research and examination of the submitted documentation has been established: Seller 20% cc is not a systemic insecticide of contact and abdominal action with a pronounced residual effect on the treated plants. the working area as well as the maximum allowable level (MRL) in food, soil. On the main studies conducted, it was established that the insecticide Seller 20% cv is classified as hazard class III by the parameter of acute toxicity. The drug has an irritating effect on the mucous membranes of the eyes and skin. It possesses functional cumulations .

The allowable daily dose of 0.72 mg/person/day is scientifically based.

Key words: Celler 20% cv, pesticide, cumulation, carcinogen, mutagen, atmospheric air, water bodies, foodstuffs, MPC, MRL.

Relevance

The constant increase in the range and quantity of pesticides used, expanding the scope of their use in various sectors of agriculture, causes an increase in the possibility of pollution of atmospheric air, water bodies and food.

Pesticides can penetrate into environmental objects (atmospheric air , air in the work area, water in reservoirs, food) during direct processing plants, soil . Based on this, low-toxic and less persistent pesticides are synthesized in our Republic to combat weeds, diseases and pests of agricultural crops. One of these chemical plant protection products is the new insecticide Seller 20% b.c. which is intended against many wheat pests, which are important and necessary food products for the population of Uzbekistan.

According to sanitary legislation, not a single chemical substance can be allowed to be used in the national economy without a thorough toxicological and hygienic assessment. In this regard, there was a need for a toxicological and hygienic assessment of the new drug Seller 20% and the development safety standards for humans and warm-blooded animals.

plants in one way or another, chemicals are transported by ascending and descending currents of liquid circulating throughout the plant, while contaminating food products obtained from such plants. In addition, during the processing of plants there is a danger of pollution of atmospheric air and water of reservoirs.

Therefore, there is an urgent need to develop hygienically justified standards of pesticides in the atmospheric air, the air of the working area, the water of reservoirs, as well as in crop products. IN our Republic has synthesized a new, promising insecticide Seller 20% strength. for pest control of wheat.

According to sanitary legislation, not a single chemical substance can be allowed to be used in the national economy without scientifically based standards and regulations for their use. Many substances are very persistent; they retain their toxicity under natural conditions for a long time. Some of them have carcinogenic, mutagenic, gonadotropic and other properties negative for the health of the population.[8.9]

Based on this, low-toxic and less persistent pesticides are synthesized in our Republic to combat weeds, diseases and pests of agricultural crops. One of these chemical plant protection products is the new insecticide Seller 20%, which is intended against many pests of wheat, which is an important and necessary food product for the population of Uzbekistan.[1.,6.]

Purpose of the study.

Scientifically justify the hygienic standards of the new insecticide Seller 20% quality. into the atmospheric air, the air of the working area, into the waters of reservoirs, and food products of plant origin and the approximate permissible level (TAC) in the soil.

Materials and research methods.

The object of the study was a new, promising insecticide Seller 20%. produced by EvroTeam LLC; Uzbekistan-Germany.

Active ingredients: alpha - cypermethrin.

Physical state: Fine crystalline powder with a slight chemical odor.

Scope of application: on wheat against harmful bugs and eggs.

Maximum permissible concentration (MPC) Seller 20% f.s. in atmospheric air, in the water of reservoirs, and TAC in soil were carried out using the calculation method.

Determination of residual quantities of the drug Seller 20% kraft. in food products in the atmospheric air, the air of the working area and in the soil were carried out in accordance with the methodological instructions for the determination of a new group of synthetic pyrethroids in plants approved by the Ministry of Health of Uzbekistan on December 25, 1997, No. 4344-87.

When developing the maximum permissible level (MAL) of the drug in food products, it was based on data on the stability of the drug and its toxicity parameters.

Research results.

Based on methodological approaches to the regulation of harmful substances in the air, taking into account toxicological parameters and its physicochemical properties, the maximum permissible concentration of the drug in the atmospheric air and the air of the working area is calculated and recommended - 0.24 mg/m³.

The development of the approximate permissible concentration of the drug was carried out using the calculation method. At the same time, the approximate permissible concentration (ATC) in soil is set at 0.2 mg/kg.

When developing the maximum permissible level (MAL), it was based on data on the stability of the drug and toxicometric parameters. Guided by generally accepted approaches in hygienic practice to the regulation of pesticides in food products, the MRL of the drug was established: in wheat - 0.18 mg/kg. However, taking into account the minimum consumption rates of the drug - 0.05 l/ha of residual quantities of insecticide Seller 20% k.s. not allowed in wheat.

Conclusions.

1. The new insecticide Seller 20% a.s. is not stable in the environment.
2. The effect of the drug on pests is manifested within the first hour.
3. The period of protective action on the plant is one full season.
4. Spraying - during the growing season, the last treatment period before harvest is 15 days.
5. Persons working with Seller 20% insecticide must be provided with personal protective equipment.
6. All persons involved in the treatment of wheat with the insecticide Seller 20% quality. before the season they must undergo a medical examination in accordance with the order of the Ministry of Health of the Republic of Uzbekistan No. 2387 of 2012.

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