



DS-GT DIATOSEC PESTICIDE

NATURAL PESTICIDE, WITHOUT THE RISK OF OVERDOSING

PRODUCT INFORMATION

The idea to apply powders containing silica to protect warehouses is not a new one, since powders were used to protect grain storage facilities in the agriculture sector from the 1930s. According to a decree coming from 1941 it was forbidden to use crystallized powders in closed premises all over the world; and then it had been followed by the research of the origin of harmless amorphous silica powders for decades, and that was proven by procedures.

As a result of these efforts prehistoric (fossil) diatomite reserves were discovered about 10 years ago, containing purely amorphous (non-crystallized) silica structures. Since then amorphous silica powders were applied with success against pests of warehouse stocks.

The DS-GT DIATOSEC is a minimum 96% highly dispersed, non-crystallized diatomite, consisting of sedimentary fossilized teguments and cores of unicellular diatomaceous algae (SiO₂ and diatomitous earth) processed with a special method into powdered silica with particles sized between 13-15 µm. Does not contain any synthetic additive.

MODE OF EFFECTION

Pests of warehouses (granary weevil, rice weevil, grain weevil, rice flour weevil, granary and flour-moth larvae) as a result of their own activity, dust themselves.

Edged silica particles wound the pests. Absorbing power of silica powder leads to the quick dehydration of wounded insects, so they perish in short time. SiO₂ content of the product does not contain any activity decreasing material, so treated and dryly warehoused grain is protected for a long time.

ENVIRONMENT

Non-crystallized diatomite is also used as food excipient, and in controversy to quartz and powdered rock it is harmless to humans and animals. The residues of cleaning can be removed without any problems with the household garbage.

Typical Parameters

Physical characteristics

Characteristics	Value
Distribution of Particles	<ul style="list-style-type: none"> • under 4 µm 15,8 % • under 12 µm 52,6 % • under 32 µm 90,7 % • under 96 µm 100,0 %
pH value (10%)	6,5 - 8-5
Dry matter content	minimum 95%
Volumetric weight	200 g/dm
Whiteness	60 - 65%
Melting point	1500-1580 °C
Specific surface	100-150 m /g
Sorbition capacity	800 kg víz/t sorbent

Chemical composition

Chemical	Portion in %
SiO ₂	84,00 - 86,00 %
Al ₂ O ₃	2,30 - 3,50 %
Fe ₂ O ₃	0,50 - 1,40 %
TiO ₂	0,15 - 0,20 %
CaO	1,50 - 3,00 %
MgO	0,50 - 1,00 %
K ₂ O	0,20 - 0,40 %
Na ₂ O	0,10 - 0,20 %

APPLICATION

DS-GT DIATOSEC is added to the grain at warehousing to prevent being infected by pests. During transportation seeds are mixed with the product providing optimal protection. To treat bigger volumes of grain there is a machine with which the product can be added continuously to the grain (up to 100 ton/hour).

USAGE

In case of danger of infection	1 kg DS-GT DIATOSEC added to each ton of the grain.
In case of Infection	2 kg DS-GT DIATOSEC added to each ton of the grain.

Guarantees absolute exemption from infection for longer period of time!



Short Summaries of Characteristics of DS-GT DIATOSEC

- DS-GT DIATOSEC is effective against every type of agricultural warehouse pest. Including types resistant to chemical-synthetic actives.
- DS-GT DIATOSEC can be mixed within the grain transportation machinery in order to protect food and feed grain.
Grain stored in flat and high silos can effectively be protected against the development and expansion of the infection, as well as, the wandering of pests. The product more quickly effects species covered with more hair, since the particles of silica powder sticks better to them compared to species with less hair. Total extinction, under normal warehousing circumstances, happens usually not later than two weeks after the treatment.
- Sticking powder of silica leads to behavioural confusion at these species causing limited moving and masticating activity. Due to the disturbed finding of partners, mating fails, so the offsprings do not born. (Decrease of the population of pests in short and long term)
- Under normal warehousing conditions DS-GT DIATOSEC has long term effect, so the treated warehouse stock remains effectively protected during the whole time of warehousing.
- Due to the characteristics of particles of A DS-GT DIATOSEC the residuum is harmless to humans, and can be removed without endangering the environment. DS-GT DIATOSEC can be removed with the traditional > 90 % grain cleaning process.

DS-GT DIATOSEC PESTICIDE is essential to the effective and environmentally friendly grain storage

The product is produced and distributed by: Ediafilt Kft.

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