SAFETY AND MODE OF ACTION
Diatomaceous earth (DE) is formed with mineral skeletons of countless single-celled plankton called diatoms. DE is extremely stable and does not produce toxic chemical residues or react with other substances in the environment. The active substance is amorphous silicon dioxide which is registered as a food additive. DE is used in many commercial products. Protect-It® absorbs the cuticular lipid layer on the insect. With this protective layer corrupted, the insect is unable to retain moisture, and as a result the insect dies from dehydration. Optimum conditions are low grain moisture content and lower relative air humidities.

PRECAUTIONS:
KEEP OUT OF REACH OF CHILDREN
Avoid contact with eyes. Use adequate ventilation and avoid breathing dust. Causes irritation and soreness in throat and nose in cases of extreme exposure. Some congestion may occur. Not hazardous when ingested. Wear a suitable dust mask approved by NIOSH/MSHA when handling. For applications to stored grain or when using a dust blower, wear a full-face NIOSH-approved respirator during mixing, loading and application.

For use in Food and/or Feed Processing Facilities:
Apply only when plant is not in operation. Cover and remove all food processing equipment, packaging material and utensils before application. Wash all surfaces that may contact food and rinse with potable water before re-use.

FIRST AID:
If eye irritation occurs, flush eyes with plenty of water, call a physician if irritation persists. If inhaled, remove to fresh air, drink water to clear throat and blow nose to evacuate dust. If breathing becomes difficult consult a physician. Take container, label or product name and Pest Control Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION:
 Treat symptomatically.

DISPOSAL:
Thoroughly empty the contents of the container into the application device. Do not reuse container. Follow provincial instructions for any required additional cleaning of the container prior to its disposal. Make empty container unsuitable for use. Dispose of the container in accordance with provincial requirements. For information on the disposal of unused, unwanted product and the cleanup of spills, contact the manufacturer or the provincial regulatory Agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

STORAGE:
Store in a cool and dry location. Store in the original container. Do not reuse container. Follow provincial instructions for any required additional cleaning of the container prior to its disposal. Make empty container unsuitable for use. Dispose of the container in accordance with provincial requirements. For information on the disposal of unused, unwanted product and the cleanup of spills, contact the manufacturer or the provincial regulatory Agency.

GUARANTEE
This product has been found to affect test weight and flowability of wheat and barley when treating stored grain (see table below). It is the responsibility of the owner of the grain to insure that the application of Protect-It® will not degrade the grain on account of test weight loss. Average Test Weight Losses (kg/hl) for Three Commodities Application rates of 0.1, 0.15 & 0.5 kg/tonne of grain (100, 150 & 500 ppm)

Commodity Application Rate (kg/tonne) Test Weight Reduction (kg/hl)
Wheat 0.1 1.7
Barley 0.15 2.0
Silica Aerogel 0.5 2.0

Protect-It® is approved for use on the following stored products:
Feed grains, Seed, Barley, Buckwheat, Corn, Oats, Flax, Peas, Soybeans and Sorghum. After storage, grain can be used as intended without removal of Protect-It®.

Protect-It® can be used in dry empty containers where grain is transported or stored, such as silos, grain elevators, food and or feed processing facilities, railcars, ships, trucks, trailers, as well as appropriate cans, drums and packages. The structure must remain empty for 1-2 weeks. For maximum effectiveness the relative humidity must remain below 55%, and the temperature above 15°C.

General, spot, and crack and crevice treatment:
Protect-It® can be applied as a dust or in a slurry. As a dust Protect-It® is best used in dry, empty structures. Use 0.5 litres of mixture per 10 m², or 5 litres per 100 m², so that Protect-It® residues are 7 g/m². Thoroughly mix 1.4 kg of Protect-It® with 10 litres of water. Use 0.5 litres of mixture per 10 m², or 5 litres per 100 m², so that Protect-It® residues are 7 g/m². For vertical surfaces, Protect-It® can be applied as a slurry so that residues are about 7 g/m². Surfaces include such areas as walls and floors, whereas spot treatments are areas smaller than about 1.5 - 2.0 m². For applications as a slurry, thoroughly mix 1.4 kg of Protect-It® with 10 litres of water. Use 0.5 litres of mixture per 10 m², or 5 litres per 100 m², so that Protect-It® residues are 7 g/m². For vertical surfaces, Protect-It® can be applied as a slurry so that residues are about 7 g/m². Treatment for stored grain:
Protect-It® may be applied to grain at any stage of preparation or transportation after drying and cleaning, and prior to storage. Dust should be mixed thoroughly with all grain to be stored. Protect-It® may be applied to grain as it enters the auger or conveyor feeder system during transfer of grain into storage facilities or into transportation containers.

To control accessible stages of Indian meal moth, Mediterranean flour moth and Angoumois grain moth:
Apply to surface of binned grain at the rate of 500 g/100 m³. Apply at monthly intervals with the first appearance of moths and continue until early fall. In severe infestations break up webbing with a rake before treatments are areas smaller than about 1.5 - 2.0 m².

For application as a slurry, thoroughly mix 1.4 kg of Protect-It® with 10 litres of water. Use 0.5 litres of mixture per 10 m², or 5 litres per 100 m², so that Protect-It® residues are 7 g/m². Apply at monthly intervals with the first appearance of moths and continue until early fall. In severe infestations break up webbing with a rake before treatments are areas smaller than about 1.5 - 2.0 m².

Commercial, spot, and crack and crevice treatment:
Protect-It® can be applied as a dust or in a slurry. As a dust Protect-It® is best used in dry, empty structures. Use 0.5 litres of mixture per 10 m², or 5 litres per 100 m², so that Protect-It® residues are 7 g/m². For vertical surfaces, Protect-It® can be applied as a slurry so that residues are about 7 g/m². Surfaces include such areas as walls and floors, whereas spot treatments are areas smaller than about 1.5 - 2.0 m². For applications as a slurry, thoroughly mix 1.4 kg of Protect-It® with 10 litres of water. Use 0.5 litres of mixture per 10 m², or 5 litres per 100 m², so that Protect-It® residues are 7 g/m². For vertical surfaces, Protect-It® can be applied as a slurry so that residues are about 7 g/m². Treatment for stored grain:
Protect-It® may be applied to grain at any stage of preparation or transportation after drying and cleaning, and prior to storage. Dust should be mixed thoroughly with all grain to be stored. Protect-It® may be applied to grain as it enters the auger or conveyor feeder system during transfer of grain into storage facilities or into transportation containers.