

Perma-Guard, Food Grade Diatomaceous Earth

Perma-Guard Food Grade Diatomaceous Earth is totally organic and safe. It contains less than 1% percent of Crystal & Silicon. Some of the uses for

Diatomaceous Earth include; household pets, gardens, flower beds, field crops, grain storage, and livestock feeding. Diatomaceous Earth is Mother Nature's product with no harm to the environment, pets or to people. Diatomaceous Earth is not an earth, it is the fossilized remains of microscopic shells created by one celled plants called DIATOMS.

Diatomaceous Earth kills by physical action, not chemical, by puncturing the insect's exoskeleton and absorbing its body fluids, thus posing no harm to warm-blooded life. Moreover, on any surface, these natural pesticide products have a remarkable repellency factor. As long as it is present, insects tend to stay away, making a serious infestation unlikely. Also, the more it is used, the more an environment is created that tends to make insects feel unwelcome.

Household:

Use Diatomaceous Earth for control of roaches, silverfish, ants, bedbugs, flies, fleas, box elder bugs, scorpions, crickets, and many others. Diatomaceous Earth can be used in and around the home, yard, animal housing, etc.

Pets:

Our best friends come in all shapes and sizes. Protect them with Diatomaceous Earth. When lightly rubbed into their coats it is very effective against fleas, ticks, lice, and other pests on pet dogs, cats, and their premises. It can also be used as an organic wormer and will kill any worms or parasites the pets may have. When using as a de-wormer mix the Diatomaceous Earth into your pets food. Mix well into kibble and wet food. Ask your vet how much for your size pet.

Cats – 1 teaspoon/day

Kittens – ½ teaspoon/ day

Dogs – 100lbs+ -2 tablespoons/ day

50 – 100 lbs – 1 tablespoon/ day

under 50lbs – 2 teaspoons/ day

Minidogs – 1 teaspoon/ day

Plants:

For control of aphids, white fly, beetles, loopers, mites, leaf hoppers, and others. Use Diatomaceous Earth inside your home, greenhouse or outdoors on fruits, vegetables, flowers, grains and grass, up to and including day of harvest. For dry application of

Diatomaceous Earth use a **duster** and cover entire plant, apply to both top and bottom of leaf. For young plants, as little as two pounds per acre may be adequate. For larger plants, five lbs per acre is probably sufficient. Diatomaceous Earth will need reapplication after a rain. Applies best when there is dew or after a light rain. It is a long lasting, effective powder. The insects can not build up resistance.

Livestock:

All livestock, Horses, Cows, Pigs, Sheep, Goats, Rabbits, Chickens and others will benefit from the use of Diatomaceous Earth. It is completely safe and nontoxic. Some of the benefits are; Control of fleas and ticks, stimulates basic metabolism, converts feed better, reduces odor and moisture in barns and stalls, results in better coat and hoof condition, keeps fly larvae from developing in manure, noticeably reducing the fly population, reduces annual vet bills, controls worms and internal parasites without chemicals, better egg production, stronger eggs, and reduces overall animal stress. Diatomaceous Earth can be mixed right in with the animals feed. Cows/Horses get 1-2 oz per day, Sheep/Goats/Hogs get 1/2 oz per day, For Chickens and other livestock you need to weight the feed and add 2% of that weight in Diatomaceous Earth. Your livestock will also get the benefit of over 14 trace minerals that make up Diatomaceous Earth.

Stored Grain:

Just add 7-10 lbs. of Diatomaceous Earth to each ton of grain as it is conveyed into the storage. When added to grain, Diatomaceous Earth killed the bugs that were present, and protected the grain from further invasions.

Bugs could not become immune and they were killed by physical action, not chemical.

When using diatomaceous earth regularly and/or in large amounts, wear a dust mask, gloves and a good set of goggles.



From: National Geographic, 1988, May: 688

PET & ANIMAL POWDER

Your best friends come in all shapes and sizes. Protect them with Perma-Guard! Effective against fleas, ticks, lice, and other pests on pet dogs, cats, their premises, and other warm-blooded animals subject to these parasites.

Perma-Guard Pet & Animal product is licensed to be used in and around the home, yard, animal housing, etc. It can be applied as a dry dust, or mixed with water at the rate of 2 oz. per quart and sprayed as a liquid.

When applying anything to your pet's skin or your own for that matter, it's always a good idea to try just a little in one area first, to make sure there's no adverse reaction to the product, be it a hand cream, powder, shampoo or soap. No matter how natural something is, everyone is different and can have allergic or just adverse reactions to things.

- **Dry Application**
 - Cover the affected area with Perma-Guard Pet & Animal Powder at the rate of 8 oz. to 16 oz. per 1,000 sq. ft.
- **Fleas, Ticks, and Lice**
 - Lightly work the material into the hair of the animal. Use brush or comb to work the material down to the skin. Pay strict attention to places where the animal cannot reach, such as the scalp. Dust the ears of the animal with care. Dust the animal's bedding and areas where the animal sleeps, as well as cracks and crevices adjacent to them. Repeat once a month or as necessary. Individual ticks observed on the animal should be dusted thoroughly.
- **Premise Application**
 - For animals confined to a specific area infested with fleas and ticks, dust the entire area with Perma-Guard Pet & Animal Powder.
- **Large Application Areas**
 - Use any hand application designed for the purpose of discharging powder. If using a small lawn fertilizer spreader, mix equal parts of dry sand with Perma-Guard Pet & Animal Powder for even flow. Dust thoroughly the first time and then periodically reapply as needed.
- **Wet Application**
 - Mix with water at the rate of 2 oz. per quart

of water (one oz. is about 8 level teaspoons). To help keep it in suspension, add one teaspoon of mild detergent and agitate the sprayer now and then while applying.

- **Re-infestation**
 - Prevent re-infestation by keeping Perma-Guard Pet & Animal Powder in the pet or animal's coat as a repellent.

Special Notes: This stuff works very well and is non-toxic. However, it is a mineral dust and it's not something you want to breath in on a constant basis or in large amounts. Once you think you have the problem under control, you can vacuum up the dust and dead insects and throw away the bag or empty the canister of the vacuum cleaner. It'll clean out the vacuum cleaner too!

If you have a cronic problem with fleas, ticks and other pests, you can apply this material in a more permanent manner by doing the following. Apply it to the sills of the building and around the perimeter of the building, where people and animals don't go that often. These are entry areas for the bugs. They can live in the basement in cracks in the slab and in the sill area undisturbed. Diatomaceous Earth will make these areas uninhabitable over the long term.

You can drill holes in the walls of your house or building using a small drill bit and apply the Diatomaceous Earth, through the hole using a puffer bottle. Then, putty or spackle up the hole so the stuff is in there for good, killing any bug that tries to lay eggs or live in there.

Applying the Diatomaceous Earth by these methods will give you permanent protection and help keep the dust level down in the house and reduce undesirable, cronic, long term exposure.

Puffer bottles and powder bottles are available on our web site at <http://www.dirtworks.net>.

Fire Ant Treatment

Our Perma-Guard Household, Commercial or D-20 labels have information for treating fire ant-hills and beds. With different labels, the formulas all contain the main mechanical ingredient food grade Diatomaceous Earth. The D-20 formula was an added insecticide, Pyrethrin, a vegetable, digestible extract made from Chrysanthemum flowers and & Piperonyl Butoxide, a natural catalyst made from the Sassafras plant, used to enhance the effect of

Pyrethrin and in so doing, reducing the amount of Pyrethrin in the product by as much as 90%. The products can be used as both a dry powder or mixed with water and a little detergent.

As a dry powder: Taking care not to be bitten, stir the surface of the nest. The ants will boil out by the hundreds. Liberally sprinkle the surface with the Perma-Guard. Every ant on the ground will be dead within fifteen minutes. This may or may not get the queen. If the ants resurface repeat the process. Come back in a little while to try to get more ants out of the nest if any survive.

As a wet mix powder: Mix 4 tablespoons of any Diatomaceous Earth with 1 tablespoon mild detergent and one gallon of water. Wet the ground with the mixture, in a circle around the nest and spiral towards the center. Pour slowly allowing it to saturate the soil and soak into the nest. The detergent allows the product to penetrate the nest better than with water alone. Repeat if necessary.

Treat with a pressure probe: Using the same mixture using a pressure probe or pump sprayer to inject the mixture into the ground. The purpose is to fill every chamber in the nest. Do this quickly so the workers won't have a chance to move the queen(s).

A pressure washer is also very effective at getting the product into even the hardest of grounds. The stream should be directed at intervals 18 inches around the center of the nest. Shooting at an angle towards the center of the nest 3 or 4 feet under ground will saturate the whole colony. Be sure to wear goggles for safety when using a power washer or sprayer.

The treatment can be repeated if necessary but extermination is almost assured, and the ants will not return. After all, the whole area above and below ground is saturated with Diatomaceous Earth. This is deadly to all ants but is particularly effective against fire ants. It is nice to know that

ants and other insect pests can be controlled without the use of expensive and dangerous chemicals.

Wet or Dry? Sometimes it is simply quicker and easier to dust the powder around on the ground. In other situations the spray can get into cracks and seep into underground cavities. When mixing with water is important to remember that the Diatomaceous Earth doesn't dissolve, so agitation is necessary for even distribution. In order to keep the product in suspension it is helpful to add 1 tablespoon of mild detergent per gallon. This also helps to carry the product into cracks that water alone won't take it.

The above information obtained from:

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