

### **Ecovet FAQ**

#### What makes Ecovet work so well?

Bugs use scents to find things. Some odors attract bugs and some repel them. The food-grade fatty acids that we use mimic some of the repellent smells that animals naturally have on their skin. We are essentially using the bug's own navigation against itself by overwhelming that system. View the "Ecovet Explainer" video to learn more: bit.ly/ecovetvideo

#### What are the ingredients in Ecovet?

Ecovet is an EPA-registered product made from three naturally derived, food-grade fatty acids that are carried in a silicone base liquid.

## The label only lists the active ingredients and says 85% are "other ingredients." Can you tell me what those other ingredients are?

Yes! Ecovet is made of:

- three food-grade fatty acids (5% each for a total of 15%)
- 84% silicone oil
- 1% fragrance

The silicone oil's job is to carry the fatty acids during application to the horse. There are a lot of different types of silicone oil as this is a very versatile compound. It is used primarily in the cosmetics and hair care industries as a detangler or to provide a lasting sheen to the coat. Our formulation is a volatile silicone oil. When exposed to the horse's skin and normal body temperature, it totally evaporates in about 20 to 30 minutes, leaving just the fatty acids.

#### So what is a fatty acid anyway?

In chemistry, particularly biochemistry, a fatty acid is a chain of carbon atoms that are associated with hydrogen atoms. They can be either saturated or unsaturated with the hydrogen atoms. They serve many purposes in the body. Fatty acids are important sources of fuel because, when metabolized, they yield large quantities of energy. Many cell types can use either glucose or fatty acids for this purpose. They are also important in the walls of cells.

Saturated fatty acids (the active ingredients in Ecovet) have no double carbon bonds and are not prone to breakdown. They are very stable at room temperature. Unsaturated fatty acids, on the other hand, can combine with oxygen. This leads to degradation and they become rancid.



# I heard that Ecovet uses palm kernel oil. I have concerns about palm oil production, and the horrible decimation of the forests by those trying to capitalize on the popularity of this ingredient in so many products now. What's your source?

We get our palm kernel oil from Emery Oleochemicals. Here is an explanation from Emery about Ecovet ingredients:

"The C8, 10 acids are derived from palm kernel oil from palm trees on plantations in Malaysia. It is very important to note that Emery is a member of RSPO (Roundtable on Sustainable Palm Oil), which means that we are certified that our palm kernel oil comes from sustainable farming in plantations and not as a result of depleting the rainforest (unsustainable.)"

The C9 in Ecovet is derived from tallow.

### If Ecovet works so well against the nasty flies, what does it do to the beneficials? I use Fly Predators, and I would hate to do something bad to them.

Ecovet does not seem to affect Fly Predators for two reasons: (1) Fly Predators are actually a species of parasitic wasp (Ecovet does not affect bees and wasps to an appreciable extent), and (2) the wasp typically is near poop piles and not on the animals themselves.

### <u>Is Ecovet safe to spray on wounds? My horse had a boo-boo this week and has a few stitches and some other scrapes.</u>

We have not specifically tested Ecovet on open wounds. Clinically speaking, we have had cases where it was impossible to treat the horse without some landing on the wound itself. Bottom line: We cannot advocate spraying directly on the wound but overspray has not shown any adverse effects that we know of at this time. Interestingly, there are current fatty acid skin products on the market that promote healing of wounds.

### <u>I ordered Ecovet and the label warnings make it sound very toxic. Why does it have water runoff warnings?</u>

As an EPA-registered product, we are mandated to carry basic precautionary statements. (Some essential oil products have been grandfathered in, so they are not required to carry these warnings at this time.)

Answer continued on next page ...



The statements do sound pretty scary. Initially the EPA had no restrictions around use of Ecovet in water, but when we discussed the possibility of transporting extremely large volumes (truck/train loads), they required a warning in case there was a massive spill. Every product has some toxicity in large enough amounts when released into the environment unexpectedly. In truth, fats and water do not mix well so it would take a very large amount.

#### What types of insects and pests will Ecovet repel?

It repels and kills mosquitoes, flies, ticks, no-see-ums (which cause difficult-to-treat allergies) and cockroaches. Recent testing has confirmed a very low toxicity to honeybees.

#### **How often do I need to apply Ecovet to my horse?**

Ecovet is long-lasting — you typically only need to apply it every one to three days depending on ambient temperature, fly pressure and rain. For certain conditions, such as sweet itch, Dr. John usually recommends initially treating the horse twice a day until the problem is under control. Because Ecovet works by evaporating and creating a repellent vapor barrier, if the horse is sweating, it may evaporate slightly faster. For more application tips, view the How to Apply Ecovet video: bit.ly/ecovetapply

### My horse is a bug magnet and is super-allergic. What's the best way to use Ecovet to help her?

Focus on treating the regions that are giving her the most trouble (usually mane, tail head and ventral abdomen). To start, apply a liberal amount until control is achieved. For an allergic horse, it may be best to start with twice-a-day treatments focusing on these regions. Sometimes using a soft cloth or mitt allows for a more effective way to apply Ecovet. Read Dr. John's blog post for more details on helping the allergic horse: bit.ly/ecovet-sweet-itch

#### **How long does Ecovet take to work?**

Its repellent effect is usually immediate but the insecticidal proprieties may take up to 24 hours to occur.

#### What is the shelf life of Ecovet?

The active ingredients in Ecovet (saturated fatty acids) are very stable and do not become rancid. We have bottles 3+ years old that are still effective.



#### Is Ecovet available in Canada? What about the UK?

Unfortunately Ecovet is not available in Canada or the UK at this time. We will post any updates about availability to our Facebook page: facebook.com/ecovetforhorses

#### Can I use Ecovet on my dog to protect him from ticks?

While Ecovet is effective against ticks, it is currently only approved for use on horses and cattle. We suggest you talk with a trusted veterinarian re: parasite protection for your small-animal companions.

