What is it with Viscosity of Essential oils and those Orifice Reducers?

Sometimes I get NO oil out of the bottle, then, the next essential oil pours out like water. I cannot control how much comes out, what is going on? What is an orifice reducer anyway?

Simply, an orifice reducer is any type of closure that makes the original opening of any type of bottle smaller. It ‘reduces’ it in size.

You find orifice reducers on many types of bottles. Your ketchup bottle has a snap cap that has a small opening in it. It reduced the size of the opening so you can help to control the amount of ketchup or other condiment on your foods.

In aromatherapy, an orifice reducer helps to ‘close’ the larger opening of the bottle so you do not accidentally pour the entire content out or allow it to pour out quickly should the bottle fall over.

They also help limit the amount of ‘fresh’ oxygenated air that can get into your bottle of essential oils. Oxygen will deteriorate your oils quickly and if you accidentally leave the cap off for too long of time, oxygen will get in and begin the destruction process to your oils.

Unfortunately each essential oil has a different viscosity (thickness or thinness) and this allows some of them to ‘pour’ out more quickly or terribly sloooowwww.

See this article for a little bit more about viscosity http://birchhillhappenings.com/aromatip/tip1408.pdf

The lighter oils, i.e. like citrus ones – lemon, lime, orange and even some of the eucalyptus are very ‘thin’ oils and will pour rather quickly.

The thicker viscosity oils like Patchouli, Vetiver, Cedarwood, Sandalwood and Vanilla, may not even come out of a bottle with an orifice reducer in place. You will need to remove it to get those oils out.

The orifice reducers are not defective. They are orifice reducers. They just make the opening smaller.

There are a couple things you can do for the ‘thinner’ oils. Tip the bottle slowly. You can also look for the ‘air hole’ each orifice reducer assembly has. It is not the center ‘hole’ where the oils come out. It is along the side of the orifice reducers – next to the center hole. If that ‘air hole’ is at the top edge when you tip the bottle for pouring, it allows air to flow into the bottle and in so doing the essential oils will flow out rather quickly.

You can try rotating the bottle so the air hole is on the bottom or side. This may help create a ‘vacuum’ that will allow the essential oil or blend to flow slower. It can be tricky to get ONLY one or two drops out of any essential oil bottle. We know, we have been doing this for 20 plus years and if we want accuracy we remove the orifice reducer and use a pipette.

We suggest only using the bottle with the orifice reducer in place if you are adding several drops to a diffuser pad or in a tart bowl diffuser, where the number of drops really doesn’t matter, and you can quickly tip the bottle upright when you have the few drops you need.
If you are blending a recipe and really only need a drop or two then it would be better to remove the orifice reducer and use a pipette. Or if you want, our fine tipped pipettes will fit down into the center hole and you can get a drop or two that way. Just remember the Thin tipped pipettes produce a much smaller drop and if you are using a recipe that calls for 1 drop, you will need to use 2 drops out of a Thin tipped pipette.

In fact, whenever you are blending a recipe, you need to remove the orifice reducer and use a pipette. To be consistent with measuring and especially when several recipes call for only 1-3 drops of various essential oils. You don’t want to accidently put in 2-3 drops when a recipe calls for only 1 drop. Use a pipette to be more accurate. Be sure to use a different pipette for each essential oil you are using – you don’t want to ‘double dip’ into another essential oil and accidently mix two of your precious oils together ruining or contaminating one.

There is one other option (a theory) and that is to remove the orifice reducer, find the ‘air opening’ and place a small amount of cotton wool from the top side using a tooth pick or other fine tip sharp object, into that tiny opening to help restrict the air flow. Once you have the cotton in position replace the orifice reducer into the bottle. By theory this should reduce the air flow. I have not ever had to do this nor have I even tried it, so it is just a theory but it should work if you do not want to use a pipette to get the one or two drops of oil you need. (If you have another suggestion, please share.)

Now you know the scoop on orifice reducers. They help to control the flow of essential oils but they will not necessarily enable you to get only one or two drops out of the bottle. Well, not all the time.

Happy blending!