



from the makers of Dry & Store®

It's widely acknowledged that Dry & Store is the worldwide leader in caring for hearing instruments. So...if Dry & Store is the best thing for hearing instruments, why DryCaddy UV®?



The fact is that not everybody will invest in the level of care that a Dry & Store appliance provides. Many resort to the myriad of passive drying "systems" on the market which are based on inferior technology and materials.

Sadly, even more individuals choose to do nothing, betting against the inevitable damaging effects of moisture relative to both short-term and long-term performance of their valuable hearing instruments.

DryCaddy UV bridges the gap between doing nothing and using an active system from Dry & Store.

DryCaddy UV is simply the best passive dryer available, and at an entirely affordable price.

- DryCaddy UV uses the most powerful, most aggressive, and most effective desiccant on the market – molecular sieve. It outperforms the more commonly used silica gel desiccant in all categories with respect to the care of delicate hearing instruments.
- While not all "ultraviolet" lights are the same, DryCaddy UV includes a UV-C lamp.
- Using a fresh DryCaddy Disc® (DC Disc) desiccant every month with the DryCaddy UV ensures that the desiccant performs properly.
- DryCaddy UV is also a handy alternative for those times when it's not convenient or practical to use an electronic Dry & Store system, such as when camping or even for short trips.

What's inside?

The DryCaddy UV dryer includes two specially designed DC Discs containing molecular sieve desiccant. Each DC Disc is capable of drying devices in the DryCaddy UV for a period of one month.

Why is molecular sieve desiccant better than silica gel?

Compared to other common desiccants such as silica gel, molecular sieve desiccant is the best at removing even the most tightly bound moisture from within the tiny crevices, pores, openings, and tubes of hearing devices as well as other moisture-sensitive devices. Then, once the moisture has been pulled from the device to the mol sieve, the mol sieve continues to aggressively hold onto the moisture with very strong electrostatic bonding forces.

You may see charts comparing adsorption capacity of various desiccant types, showing silica gel having a slightly greater surface area. But there are a couple of major points to remember.

First, the difference in surface area is very slight. Both molecular sieve and silica gel have a huge amount of surface area on their crystalline structures. For example, a single tablespoon of molecular sieve can have an internal surface area greater than that of a football field.

Second, adsorption capacity is affected by humidity. Mol sieve has capacity greater than silica gel at relative humidity levels below 40%, which is the typical condition inside a drying device, whether passive or active.

Third, the most important factor is how quickly the water molecule is attracted to the desiccant and how well molecules "stick" to the surface so they do not come back off easily and get back into the hearing aid. In comparing adsorption strength, think of silica gel as a Post-It® note, and molecular sieve as duct tape.

Once the molecular sieve desiccant is saturated with moisture, can it be reactivated for reuse?

The strong electrostatic bonding forces between polarizable water molecules and the surface of the molecular sieve crystals make mol

sieve by far the best desiccant for hearing device drying. However, it is that moisture-bonding strength that also makes it difficult to reactivate for reuse. While technically a mol sieve desiccant can be reactivated, the high temperature required for thorough reactivation would cause the plastic DC Disc desiccant container to melt before the mol sieve is properly reactivated.

The second issue associated with reactivating is that of an indicator. Specifically, how can a user tell when it's time to recharge, and then how does the user know when the desiccant has been fully reactivated? There are products on the market that use a moisture indicator chemical that changes from pink when the beads are wet, to blue when dry. Unfortunately, that pink-to-blue color-indicating chemical contains cobalt chloride. Cobalt chloride has been classified by the IARC (International Agency for Research on Cancer) in Group 2B, which states that it is possibly carcinogenic to humans. While cobalt chloride impregnated mol sieve has not been banned from use, for safety purposes its use in consumer products is not recommended. Unfortunately, a safer moisture-indicating mol sieve has not yet been developed, and in general, moisture indicators are not entirely reliable.

The other alternative would be to follow a laboratory type procedure using a scale capable of measuring fractions of a gram in order to weigh the DC Disc periodically during the recharging process until a "dry weight" (less than 4% by weight moisture on the molecular sieve) is achieved.

It's important to note that even silica gel desiccants cannot be recharged an indefinite number of times. After multiple reactivations, the silica gel's structure changes to the point that it does not attract or hold moisture. And if the temperature during recharging is not maintained within a narrow range, the silica gel can be irreparably damaged. But the user doesn't necessarily know that at the time. Overall, recharging simply is not a reliable process.

Can I use a Dry-Brik® in the DryCaddy UV? Are the DC Disc and Dry-Brik interchangeable?

No, they're not interchangeable, because the rate of adsorption is regulated by the number of holes in each desiccant container. Removing the foil cover on the Dry-Brik reveals four tiny holes. That's all that is needed because the Dry-Brik is used in an *active* drying system. In contrast, the DC Disc has dozens of tiny holes in order to facilitate the movement of moisture to the desiccant in a closed system (the DryCaddy UV dryer) with no air movement. If exposed to the heat and moving air in a Dry & Store system, the DC Disc would have an extremely short useful life.

DryCaddy UV...

- Best passive dryer on the market
- Protects, stores, and dries hearing instruments, no electricity required
- Offers UV-C lamp
- Great for travel, camping, pool-time, etc.
- Also an option for everyday use in temperate climates
- Outperforms other passive drying "systems" due to proprietary mol sieve desiccant
- Compact size, easy to place on nightstand or table