

Debunking the Myth of CD/DVD Rot

By G. A. "Andy" Marken

Like Frankenstein, Dracula and "The Attack of the Killer Tomatoes," some horror stories get retold again and again. Trouble is they don't get better with age. They get worse. They take on a life of their own. Take the dreaded "CD/DVD Rot."

It did happen once! In the 1980s in one instance that has been really documented in Australia. Some of the very first DVD media from one production company that didn't know how to make DVD media (they tried to switch from making laser discs which did have that problem to DVD using the old laser disc production techniques).

The media wasn't made to the then-new DVD Forum spec. It was made as cheaply as possible. It was pawned off on some unsuspecting Aussie replicators and a few unsuspecting replicators in the Far East. None of the recordable media was shipped to media replicators in the Americas or Europe. Rot developed in the discs eating all the data.

VP Pops the Myth

The "fact" swept the globe. It crept back into its wet, dank cave. But every 3-4 years it reemerges. People swear they have discs that have contracted rot. People get sweaty palms as they check their CDs and DVDs for telltale signs. The government's National Institute of Standards and Technology (NIST) determines they will do an in-depth and exhaustive evaluation of the technologies to set impartial guidelines on how long the media will really last.

Don't worry that they are still working with 12x CD-R and 1x DVD-R. They are like the IRS — only there to help you!

Set the record straight fact: CDs and DVDs will not rot.

A trusted and very picky researcher, analyst and writer named Don Labriola spent several months researching the subject recently. He found the one documented instance. He talked with media manufacturers and replicators around the globe about the instance and new technologies that have been used and are constantly being improved.

Brand name firms like Verbatim, Maxell and Mitsubishi Chemical have made so many enhancements in the CD and DVD technology (see cross sections of current technology) we take for granted today that this just won't happen, assuming you treat your discs with a little common sense TLC. Quality media produced over the past 4 to 5 years should have a data life up to at least 100 years.

It is true that these firms do make changes in the materials and manufacturing methods they use. But it is always an advance based on tested and proven improvements, not steps backward.

We can't say the same for second-tier, no-name products (even though the media might be good) because they "borrow" advances rather than innovate. But in their case if you're using 24x CD-R and 1x or 2x DVD-R or +R, it is probably pretty good because the processes and procedures are established and routine.

The brand name leaders have already implemented quality and performance enhancements that deliver high quality 52x CD-R, 8x DVD+/-R, 4x DVD-RW and double layer (8.5GB per side) DVDR media (see cross section). They are already working to deliver 16X DVD+/-R discs.

If a media manufacturer does use cheap adhesives or their stampers (production equipment) don't sandwich the discs thoroughly, there might be some oxidation on the outer edges, but that

isn't rot. It's delamination. In some instances data on the hub or outer edges may be lost with this cheap media but usually it is just aesthetically unattractive and can be arrested by using common sense storage techniques.

Respect Your Content

This isn't to say that your data can't be lost or destroyed even with the best media if you don't treat discs properly. But using a little common sense, your kids and grandkids will be able to enjoy your audio and video contents in 2100 — assuming they can find an antiquated CD or DVD player.

Follow some simple, common sense guidelines.

Don't bend and force the discs out of the jewel case. It can crack the protective layer and oxidation will occur.

Don't worry about minor scratches on the clear underside of the disc. The scratch has to be pretty deep to make your data unreadable.

The label side is the important protective area to keep intact. That means using a sharp pen is a no-no. If you are going to mark on the disc use a water- or alcohol-based soft marker.

Store your discs in their jewel cases like your books, vertically.

If you're eating popcorn while watching your videos and want to change discs, wipe your hands vigorously on your pants or shirt before handling the discs and then only on the outer edges or the hub.

Store the discs so they aren't in direct sunlight in a place that is dry and relatively constant temperature. That means throwing them on the dash of your car or on the coffee table in front of the family room bay windows could have serious repercussions.

Wipe them off periodically with a clean, dry cloth.

There are petabytes of data out there — audio, video and documents — you want to capture, save and enjoy. Good do-it-all burners are really cheap; good CD/DVD media is reasonable and getting better and the audio/video software is almost user friendly.

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