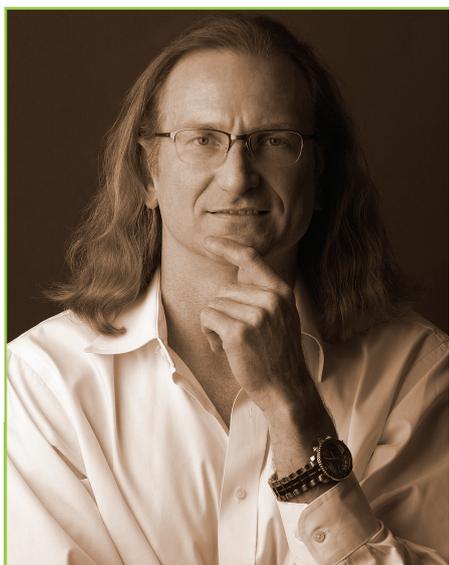


# THE SCI-FILES



## DOUG SCHOON

Doug Schoon is an internationally recognised scientist, author and educator with over 30 years' experience in the cosmetic, beauty and personal care industry. He is a leading industry authority known for his technical and regulatory work and is co-chair of the *Nail Manufacturers Council (NMC)*.

Doug was CND™'s chief scientist and head of the R&D laboratory, QA, and field testing/evaluation departments for almost 20 years and has authored several books, video and audio training programmes, as well as magazine articles about salon products, safety, and practices for salon professionals.

In 1986, Schoon founded *Chemical Awareness Training Service (CATS)* – the beauty industry's first safety training company. This was followed by his book, *Nail Structure & Product Chemistry*, 1st and 2nd edition, which has become essential reading for nail professionals, with a new edition out soon. He runs *Face-to-Face with Doug Schoon*, an internet learning series that focuses on nails, nail products and services.

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Watch Doug's internet series on nails, nail products and services at [www.faceofacewithdougshoon.com](http://www.faceofacewithdougshoon.com)

Globally renowned scientist and nail expert, **DOUG SCHOON**, explores the ideas and concerns surrounding nails, techniques and products

## THE BLAME GAME: DRY NAILS

**A**cetone is often blamed for dry nails, and while it can remove water from the nail plate, it only does so from the upper surface and the drying is only temporary.

After using acetone, normal nail plates will rehydrate to normal levels within hours. That's because the nail plate loves to absorb water, even from the air, and can absorb up to 30% of its own weight in water – however 15% is more typical.

Acetone, isopropyl alcohol and ethyl ether has been used for many years as a nail plate surface dehydrator, also known as a nail surface dryer, the two terms of which are interchangeable. When used as directed, these surface dehydrators will not damage or 'dry out' the nail plate. The surface of the nail plate becomes partially dehydrated, but not completely. It would be impossible to completely dehydrate the nail plate as it will always contain a large amount of water, even after soaking in acetone to remove nail coatings.

It's easy to reverse nail surface dehydration. By simply touching the surface with a damp cloth, the area would be instantly rehydrated. Water flows into and through the nail plate at relatively high rates and is normally streaming at a steady rate from the nail bed through the nail plate and evaporating from the surface. Water also absorbs quickly into the nail plate.

The eye can be fooled when acetone removes 'oily' substances from near the surface and causes the nail plate's

appearance to dramatically change to reveal any preexisting surface damage, hidden by the presence of these oils. This damage is often mistaken for 'dryness', even though this isn't caused by a lack of water or moisture. This dry appearance is just a visual effect caused when oily substances near the plate surface are removed. These oils are easily replaced by using a high quality, penetrating nail oil which should revert the nail surface to its former appearance.

So, what if these whitish dry-looking patches don't disappear when treated with water or oil? This is indicative of the upper nail plate surface being damaged and is likely that the nail cells are seriously disrupted in that area. Dryness isn't the problem, yet nail technicians will often just tell their clients they have dry nails and need more moisture or oil. That's not the correct solution! Instead, identify the source of the nail damage and prevent it from reoccurring.

"It would be impossible to completely dehydrate the nail plate as it will always contain a large amount of water, even after soaking in acetone to remove nail coatings."

Don't mistake visible nail damage for being dryness as it just shifts the responsibility in the wrong direction. Surface damage such as microscopic pits and scratches on the nail plate may look similar to dehydration, but is not. Surface white spots, pitting or other similar damage is often a result of overly forceful removal of a nail coating. Doubters who may still want to blame the acetone need only to soak some nail clippings in acetone for weeks or months to discover the nail plates will not become pitted or develop surface white spots. These are most often due to overly aggressive removal of nail coatings. **S**