The dangers of non natural waxes and all polishes

Awhile back I put in 2 threads concerning chemicals that will adversely affect translucent, or for that matter, any wood topcoat/finish and ultimately the wood itself. They are on the Stocks: Making, Repairing, Refinishing, Modifying, and Bedding forum and address two specific products that appear on RFC with some regularity. The First is Howard's Feed-N-Wax and the second is Scratch-X.

Recommendations to use those products appear fairly often on a variety of “brand” or firearms “model” threads and while I can and do try and find those and direct them to the threads mentioned above I generally have to add additional information since it is difficult to address the “well it works for me. . . “ defense.

I also get a number of PM's and before I removed my “send noremf an email” option got quite a few emails about them.

I decided to create a thread in a question and answer format which hopefully will get some folks thinking about contaminants in polishes and “waxes” with “waxes” referring to non 100% natural plant products.

So here it is:

The majority of non 100% natural plant waxes or polishes have some type of synthetic lubricant in them.

The following is an incomplete list of some of those lubricants, followed by the number of products/brand names etc. worldwide that have them as ingredients. ALL of them are bare wood contaminates in the context of this thread. Some are actively aggressive, some not so active and some simply caustic but will create “fumes” that will be present in an enclosed space for the length of time it takes for the chemical to bleed off which sometime can take months.

An incomplete list of lubricants- most common

Petroleum based lubricants: In excess of 100,000 brand names.

- Gear Oils
- Motor Oils
- 3-In-One Oil
- Automatic Transmission Fluid
- Cycle Oil
- Valve Oil
- Hydraulic oils
- Air compressor oils
- Gas compressor oils
- Bearing and circulating system oils
- Refrigerator compressor oils
- Steam and gas turbine oils
- Aviation gas turbine oils
- Aviation Piston engine oils
- Marine crosshead cylinder oils
- Marine crosshead crankcase oils
- Marine Trunk piston engine oils
- Marine stem tube lubricants
- Mineral Oil
- Penetrating oils

Non Petroleum based lubricants: In excess of 50,000 brand names.

- Boron nitride
- Castor Oil
- Graphite
Jig-A-Loo
Krytox
Lanolin
Molybdenite
Molybdenum disulfide
Nasal sebum
Polyolester
Silicone resin
Ski Wax
Synthetic Oil
Vaseline

Silicone base lubricants: In excess of 25,000 brand names

Plumbers Grease
Rem-Oil
Silicone Oil – Sprays and non sprays
Silicone Grease
Dry Cleaning solvents
Dielectric greases
Mold release agents
Liquid Silk
Some versions of K-Y jelly.

Water Based lubricants: In excess of 1,000 brand names Mostly personal care products. Here are just 2 examples.

K-Y Lube
Astroglide

Vegetable Oil based lubricants: In excess of 50,000 brand names

All vegetable oils are lubricants to one degree or another and can be edible or inedible products.

Teflon based lubricants: In excess of 5,000 brand names.

Anything that says teflon on it

Anything that contains PTFE (polytetrafluorethylene)

The chemical names for all of the above are varied with terminology such as Aromatic Hydrocarbons to Petroleum Hydro Treated Heavy, or light, Parrffinic. (Mineral Oil) and others which require “drilling” down to trade names, or common names, or brand names then to common names etc.

"Due to their low surface tension, oils are capable of creeping into the smallest openings even against gravity." What that means in English is that if your wood finish fails in any way shape or form, and most of the time you can’t tell, that oils will get into that area, into the wood and screw it up.

So my question is this:

You have completed your stock prep and are ready to topcoat/finish it. How many of you would use any of the above to do that?

If your answer is no then why would you use any of them as additional protection for your topcoat/finish knowing that if they penetrate into the wood because of a failure of the topcoat/finish or a scratch or whatever, that you are in effect doing what you said no to?

If you said yes then this post is not for you.
Comments/Questions and answers that have come up more than once.

C: Not using on bare wood but on the topcoat/finish over it and never had a problem.

A: Mineral Oil will only will contaminate if the finish is compromised but Silicone will compromise the finish and then contaminate.

C: Mine is not. (Compromised)

A: How can you tell?

C: Been using for 1,000 years and never had a problem.

A: Does not mean you won't tomorrow.

Q: How can I tell that this stuff screwed up my finish?

A: Unless you are an experienced woodworker and have at least a minimal educational background in the chemical properties of chemicals used, you probably won’t be able to until you go to refinish and start having all kinds of problems. General assumption is that the finish simply failed as it got older not that you caused it to.

Contamination can take any or all of the normal finish failures from “orange-peel” to “lifting” to “bubbles” to “foggy areas”.

Q: How long will it take to screw up my finish?

A: Unless you are a chemist and actually take samples of the finish, how thick it is, how much of the contaminants are on there, whether the finish has been compromised and stuff like that, it is impossible to tell. Could be a day, a year or even a few years and if you have a rifle that is “look at a lot, but don't shoot much” it may not happen in your lifetime.

Q: If the companies know they will screw up a finish, why do they produce them?

A: Because the results are what the consumer wants which are shiny finishes with virtually no hand polishing. Lubricants provide that especially Silicone. The majority of consumers by far never ask about the liabilities of what they are using and the companies are not required to mention that.

Q: How do I find out what is in something I am using?

A: Material Safety Data Sheets (MSDS) will generally give you specifics but can lead to a further “trail” if you will, requiring you to “drill” down to specific chemicals that you then can look up.

You can simply look for something like “MSDS for Howard's Feed-N-Wax”

As a consumer, companies are only required to list chemicals that have safety warnings but most companies volunteer the rest of the information to the consumer as a part of doing business.

Also cuts down on liability claims when they do that.

If the products are supplied to a manufacturing organization then the MSDS sheet sent to them has to have all of the chemicals, safety hazards or not.

If a company does not give you an MSDS sheet, which is required by law, then using that chemical is a very bad idea to say the least.

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