
WARNING: ARE HOMEMADE VINEGAR CLEANERS SAFE FOR ALL SURFACES?

11.14.16



↑

Today I want to share an important topic with you, are homemade vinegar cleaners safe for all surfaces?

Making your own cleaner is so easy to do, and cheap too! Plus, it eliminates many harmful unnecessary chemicals typically found in store-bought cleaners.

Can't go wrong with that, right?

Actually, you can!

As a chemist, I am constantly experimenting with everything. Homemade cleaners, **making your own plant food**, **removing rust in a crazy way**, and making **crazy concoctions for my body**. I am also notoriously creating dangerous things that can ruin something in the house or practically blow something up.

ARE HOMEMADE VINEGAR CLEANERS SAFE FOR ALL SURFACES?



Warning!
Is Vinegar Safe to Use on All Surfaces??



↑



SINCE I LEARN THINGS THE HARD WAY AND RESEARCH EVERYTHING I CAN, I WANT TO SHARE IT WITH YOU. THAT WAY, YOU DON'T HAVE TO LEARN THE HARD WAY!

First, a quick story before we dive in. In college, I took this hard class called organic qualitative analysis. It was hard, but one of my favorite classes ever! It was like what a forensic chemist would do back in the day before fancy technology. We were given some random unknown substance that was only about a teaspoon worth. The goal was to figure out what that substance was through various testing methods. Chemical testing, physical testing (like burning and freezing), and instrumental testing.

When you get a bunch of chemists in a lab trying to figure things out any way possible, disasters can happen. More times than not, we set off ventilation system alarms due to smoking out the lab with acids. Many people got burns from mixing up dangerous chemicals unknowingly. So, I learned A LOT about trial and error, investigating, and researching in that class.

I practice those lessons today when I create homemade chemist solutions to share with you.

Which leads me to today's post..

Vinegar is chemically known as acetic acid. It is made through alcohol fermentation and is highly acidic, which is what makes it an awesome cleaning agent. I use it in so many homemade solutions. It is effective, cheap, and safe around humans and pets.

Since it is an acid though, there are a few things you need to watch out for.

DO NOT USE VINEGAR ON NATURAL STONE OR MARBLE.

Vinegar can eat away at stone and marble surfaces overtime. Stone tiles, travertine, granite, marble, or anything in that family should not have vinegar as a cleaner!

↑

UNSEALED GROUT.

Some grouts found in ceramic tiles or that's been sealed is okay, but if you have grout unsealed in stone tile, it can eat away at that. Strong acids in general should not be used for this.

WOOD FLOORS OR FURNITURE.

Vinegar can damage the wood and any stain on hardwood floors. In fact, vinegar is a common wood distressing technique, so it can remove stain and damage your natural hard wood.

This goes for waxed wood furniture too. It can damage the coating on the wood. If you have fake wood floors, vinegar is fine to use.

DON'T MIX VINEGAR AND HYDROGEN PEROXIDE IN A BOTTLE!

I see solutions all over the internet that have the combination of vinegar and peroxide in a bottle. Combined, vinegar and peroxide form peracetic acid. This is a very strong acid that can be dangerous when breathed in or on the skin. It can cause asthma too! **You can see how toxic it is on this MSDS** .

You may notice that I use vinegar and hydrogen peroxide together in some of my solutions! Here's the thing, using them separate is safe and is effective too. For instance, in **this homemade carpet cleaner** , I use baking soda, then vinegar for the part one. Then I follow up by spraying the hydrogen peroxide. I never bottle them up together! That is the key.

CERTAIN FOOD STAINS.

It is best not to clean up egg or anything greasy with vinegar. I've accidentally used some homemade cleaner on an egg spill, and it just formed this hard coagulant, making it impossible to get off. Always use something alkaline, like a dish soap!

SO, WHAT CAN YOU USE VINEGAR ON?

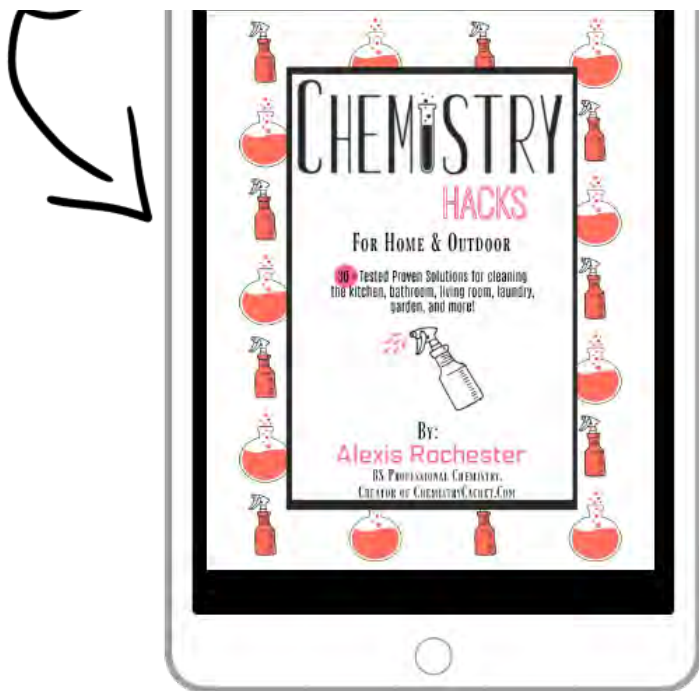
Vinegar is still incredibly effective for cleaning surfaces like carpet, plastic, glass, fabrics, stainless steel, and more!

Ask a chemist! If you aren't sure, feel free to ask me via email.

If you want more fun cleaning solutions and information, follow me on social media and subscribe to the newsletter. And be on the lookout for the Chemistry Hacks for home and garden book!

**Click Below
For The E-Book**





Follow on [Facebook](#) | [Bloglovin](#) | [Twitter](#) | [Instagram](#) | [Pinterest](#) | [Hometalk](#)

FILED UNDER: CHEMIST SOLUTIONS, CLEANER
TAGGED WITH: CLEANING, DIY, HOMEMADE CLEANERS, VINEGAR CLEANER

PREVIOUS ARTICLE:
« FRIDAY FAVORITES – NOVEMBER VIBES IN TEXAS & AMAZON GIVEAWAY!

NEXT ARTICLE:
HOW TO PICK THE BEST GIFT ON A BUDGET WITH THREE EASY STEPS »

Comments



Emily S says
November 14, 2016 at 6:08 am

Thank you so much for sharing this! I've been using vinegar on my stone counters after trying this new homemade cleaner, but heard it could damage it. Now I know!



Reply



Alexis says

November 14, 2016 at 6:10 am

You're welcome! I see things all over the internet for homemade cleaners, but most don't understand what vinegar can really do.

Reply



Laurie S says

November 14, 2016 at 10:38 am

Happy Monday. Thank you for the safety heads up about vinegar and vinegar-based cleaners, especially interaction with other chemicals. Always appreciate your homemade cleaning recipes and that you test things for us. Looking forward to your book!

Reply



Alexis says

November 14, 2016 at 11:51 am

Thanks Laurie! I love getting to share things to help everyone! I can't wait for the book to be done soon 😊 have a great Monday!

Reply



Yolie says

November 14, 2016 at 11:20 am

Thank you so much for the warning. Would vinegar be safe to mix with Bar Keepers Friend in order to clean my copper cookware? My copper is heavy, not plated. BTW, I look forward to reading what you have to say. I learn so much!

Reply



Alexis says

↑



November 14, 2016 at 12:59 pm

Thanks Yolie, I am so happy you get to learn new stuff 😊 Vinegar is definitely safe for copper. I have used a little baking soda and vinegar to remove tarnish on copper pans. I am not sure if you can mix it with that product, although I am sure it would be fine since vinegar is safe for copper 😊

Reply



Hena Tayeb says

November 14, 2016 at 8:02 pm

that's great. thanks for sharing

Reply



Alexis says

November 15, 2016 at 6:15 am

Thanks Hena!

Reply



Mar says

November 14, 2016 at 8:42 pm

This was really informative! Our go to cleaner is vinegar, water and essential oils. I will definitely be sharing this info with my husband.

Ps. Any tips for a red wine stain on a white table?

Reply



Alexis says

November 15, 2016 at 6:16 am

Thanks Mar, I hope it comes in handy! Yes, I have two things that may work in my upcoming book. I will email you some tips 😊



Reply



Virginia says

November 18, 2016 at 1:08 pm

PLEASE let folks know NOT to mix bleach with out great caution. Thanks

Reply



Alexis says

November 18, 2016 at 6:17 pm

Yes Virginia, that is so true! These two mixed at the same time can cause chlorine gas. I don't use much bleach in the house because of how toxic it can be with many agents.

Reply



TONI JOHNSON says

November 21, 2016 at 12:26 pm

Boy it's nice to have a Chemist right at our fingertips. Thank you for willing to help us all out.

Reply



Alexis says

November 21, 2016 at 1:36 pm

Thanks so much Toni! I hope this information can be useful 😊

Reply



Maggie says

December 21, 2016 at 10:53 am

↑

Hi Alexis, I have a daughter named Alexa, anyway, I just discovered your sight through a pin on Hometalk and I love your sight and all the information! I do have a question, I have read that a vinegar and water mixture was safe for your wood manufactured floors and regular wood floors, I'm confused now after reading your information on vinegar use. Should I not be using this mixture on my wood floor anymore? Thanks so much for your wonderful information.

Reply



Alexis says

December 21, 2016 at 3:08 pm

Oh how cool! I love that name! Mixing vinegar with water will definitely dilute the acidity. I haven't personally tried it on wood floors, but some solutions we make have vinegar diluted with water Among other things and it is safe for wood.

Reply



Cindy says

December 21, 2016 at 3:01 pm

If vinegar is mixed with dish soap does it make it alkaline enough to use on surfaces? Wondering about formica countertops and our New Luxury Vinyl Flooring?

Reply



Alexis says

December 21, 2016 at 3:06 pm

The dish soap will definitely raise the PH so it will be safer to use. I would definitely check with the manufacturer first to be safe.

Reply



Annette Morefield says

December 22, 2016 at 9:32 am

Alexis, I was really educated by your practical information. I am a housecleaner and many of my clients want me to use vinegar cleaners. Now, I know when and where



to use them. I've always wondered if vinegar based cleaners really have anti bacterial qualities or if they just clean well. Would really appreciate your answer on this.

Thanks!

Reply



Alexis says

December 23, 2016 at 6:31 am

Hi Annette! So good to get your comment. Vinegar is a good cleaner mainly because it is a strong, yet safe acid. It can cut through grim and scum really good. However, it is not a disinfectant or anti bacterial like hydrogen peroxide would be. That is why I typically don't use vinegar on it's own for a cleaner, especially in the a bathroom or kitchen where bacteria can be. Hope this helps! Merry Christmas!

Reply



Seetha Krishnaswamy says

December 23, 2016 at 8:29 pm

Alexis, I am from India. I am happy that I stumbled upon your blog through Hometalk. Thank you for sharing your little experiments. I have a farm near by, so some times there is a bad odour in my house. Can I use vinegar and baking soda combination with lemon grass oil as a spray? Thank you.

Reply



Alexis says

December 24, 2016 at 6:40 am

Hi Seetha, thanks for stopping by to join us! Vinegar and baking soda on their own do a good job of odor removal, but combined together in a spray bottle they actually neutralize each other. Since vinegar is an acid and baking soda is a base, they will bubble up and then turn neutral. What you can do is set out bowls o baking soda and coffee grounds around the house to absorb any lingering odors. Also, [you can try making your own room spray with this easy recipe](#) or [this one that involves boiling some natural things on the stove](#). I also love using baking soda and vinegar separate to deodorize carpet, [like in this recipe](#). It works well since you first add baking soda, then add vinegar. If any odor is lingering in a carpet or rug, you can also use that. Hope that helps! Let em know if you have any other questions!



Reply



Seetha Krishnaswamy says

December 25, 2016 at 1:23 am

Thank you so much Alexis.

Reply



LindaDee Baker says

March 15, 2017 at 6:21 pm

It's great to learn chem-based tips. Thanks for sharing what you studied (& continue to develop) & making time to post it. As a penurious disabled tree-hugger, I need DIY solutions.

Reply



Alexis says

March 15, 2017 at 7:33 pm

Thank you! I'm so happy to have you here on this space too 😊

Reply



sandy says

February 13, 2019 at 12:35 pm

I have a bath fitters insert in my shower and think its made of silicone. The caulk is constantly getting moldy and of course that is the only thing they are not responsible for.

You can soak cotton balls in "bleach" and lay them over the caulk and it kills the mold I did this and it worked, now its back any suggestions. By the way you cannot use any products that are aerosol on the insert!! I've used vinegar and dawn on the shower curtain and it worked marvelous...

Reply





Alexis says

February 15, 2019 at 7:22 pm

You can try this [tea tree oil mixture](#), it works on most surfaces. As far as it coming back, it is one of those areas that is really hard to control the moisture in, so it comes back quickly!

Reply



Brenda Wheeley says

March 28, 2019 at 10:37 am

So happy I have found your information by way of Hometalk.

Reply



Alexis says

March 29, 2019 at 8:22 am

I'm so happy you found us too Brenda!! Welcome 😊

Reply



Anna Echeverri says

July 16, 2020 at 3:20 pm

Trying to clean the grates on a gas cooktop. The grates ARE NOT enamel coated. Thought about vinegar and baking soda, but didn't work. Then I thought vinegar and Bar Keepers Friend, but thought I should ask first. Your thoughts?

Reply



Alexis says

July 19, 2020 at 12:25 pm

I would try cream of tartar scrub or you can do the bar keepers friend too. I would also add some ultra dishwashing liquid to degrease anything



Reply



Ian Paul says

May 16, 2022 at 6:31 pm

Hi,

So, I'm a new-ish chemist and I have a clarification question:

Store hydrogen peroxide sitting here (3% so typical very diluted grocery store stuff, as well unscented dawn ultra dish soap, and distilled white vinegar which I did check the sds on to confirm and it's actually lower than my question assumes, but let's say it's (5%) acetic acid . I realize that concentrated forms would be able to interact and form a real paracetic acid, but I did a lot of simple math, and then some chem research, then went to the r/chemistry forum, where professional chemists weigh in. This had already been asked and had over 4 years of discussion up to present, with overwhelming (as in unanimous) consensus there was that household diluted amounts couldn't form anything that was really much more potent or lingering than going a little crazy with the bleach, but I'm curious if you have a counter to that.

I'm using then combined in a solution with a few drops of dawn as a surfactant, to remove drywall mold in a newly bought house. My vents are sealed and I'm wearing a full organic parcel mask and a full bio suit etc. and have industrial drum fans exhausting because I don't want to worry, but it seems like from what I've read: a.) you couldn't form a strong paracetic acid compound in say household dilution and a spray bottle, and based on some sds research on mold products, b.) it's probably highly effective for porous surfaces, and still below the listed like 5-16% paracetic acid concentrations that I believe even RMr-86 and top brands have.

Curious as to your thoughts, going overkill to be safe, but based off those sds warnings for the much more potent mold sprays, I'd personally wear a full face mask and nitrile gloves and vent heavily, but I'm kinda wondering if this isn't a much less harsh treatment option for effective mold on walls and drywall and wood and the like that may be highly effective.

Popular consensus is pretty alarmist on the idea of forming paracetic acid-it was my first reaction myself-but seems to not be factoring in the variables, and just wearing sensible PPE for vapors and fumes, I'm wondering if you might give it a look as a mold eliminating surfactant. Something like bleach will shock the mold colonies and release mycotoxins if they can and airborne spores, resulting in wet vac work and potentially lingering contaminants.

If this works similarly to vinegar, I'm hypothesizing that it will react more subtly, so the fungus doesn't react protectively from the shock, and allow porous material penetration to get the deeper roots without encouraging the mold to dig in and go

↑

deeper to survive before it's exposed.

I will probably also thoroughly rinse and remove all remaining solution after an hour and expect to be doing drywall replacing which I don't mind, but I once I do this, and have thoroughly decontaminated all solution exposed surfaces and surrounded area of any chemical residue with paper towels and a desiccant with fan airflow, I think cleaning the surrounding tiles and hard surfaces with a 1 in 10 bleach dilution still masked would decontaminate the small room and ideally remove dead spores and material as well as potentially prevent regrowth.

Again, I'm literally ventilated and wearing a haz suit and have the rest of the house sealed off while venting with drum fans, so I'm completely safe regardless being overcautious, but in a thorough discussion, including by chemists who work with very concentrated paracetic acid and routinely form it intentionally, the risk seems very overstated-I wear a full organic vapor face mask for even concentrated isopropyl alcohol because even a high volume of store rubbing alcohol contains fumes that a spray paint or painters respirator does virtually nothing against.

Would love to hear your thoughts or see if you reach the same conclusion I did, but don't worry regardless I'll do it extra safely.

Just realizing that a lot of consumer products here in the states have a terrifying lack of chemical ingredients and get away with crazy lethal advisory practices, so assuming the Reddit chemist panel is correct, I'd wager this method is a good deal safer than typical specialized mold removers. I'll use something paracetic acid would corrode visibly as an informal sample test and place it right above the application area or in the direction of redirected airflow, and test it in conjunction with pH and maybe capture a concentrated air sample using an appropriate acid reagent system, then figure out the correct metrics I'll need to analyze it microscopically and behaviorally with a condenser and vacuum distillation method. Using the air volume I will use pressure to fill the reagent bottle with, as well as a second sample avoiding pressure to ensure more accurate control of possible variables, I should be able to calculate the most concentrated gaseous form using volume and maybe a precipitate analysis and microscopic inspection of that material.

I could then (presuming I have anything close to a sample size big enough to have analytical significance) just use liquid chromatography to quantify the unknown compounds and determine both by volume dispersion to a sloppy degree and the potency level.

Taking two initial physical exposure swabs and two 39 minutes in, as well as an hour after, I'd say I'd have a pretty clear picture to comfortably use anecdotally, and if there is obvious danger or obviously a lack of it, let me know if you'd like to hear the results!

Sometimes in chemicals and households with the variety of applications, I worry about the dangers of the illusion of safety- ie isopropyl alcohol and a mask designed for particulates not vapors-but, I also worry that it seems often the attempt to increase safety measures exposes us to higher and more in this case

↑

maybe not considered risks depending.

The safe way most flame retardant compounds have nasty and usually carcinogenic properties, I would say evaluating the risk of this method depends on what you're DIYing and the level of information you have, but equally on your alternatives. Nothing mold treating commercially is a pleasant safety read, and as mold is an intensive problem with big health and structural implications inherent in the problem, I'm coming from an angle of wondering if this might not be an ideal safer solution with proper safety or instruction.

If r/chemistry is right, the formed reaction and acid are far friendlier than the competitor store products I've seen, and as a home listed trick it could be published informatively and responsibly with safety emphasis, whereas store products in the states not only don't include sds sheets (replaced by hyper and instructions), they also often list not a single ingredient unless you're Clorox and have been sued a lot- they make PineSol, and as potentially nasty as that is they still are vague with it- I assume the huge number of lawsuits and pending class actions actually have to reach a cost point before that kind of thing gets well emphasized?

Anyhow, lengthy, but that's what I'm gonna try. If I have time to analyze and you want to hear my very statistically insignificant findings, let me know!

[Reply](#)



Ian Paul says

May 16, 2022 at 6:37 pm

Oh, edit, when I say decontaminate I mean thoroughly rinse and dilute and dry and repeat with water-not trying to combine even the most minimal of these with bleach-talk about truly nasty. I'll do that, exhaust with industrial drum fans and in line external venting, then rinse again for good measure and still won't touch the sprayed and applied area, just hard surfaces like tiling and counters

[Reply](#)



Alexis says

May 20, 2022 at 9:45 am

Hi! Sure, feel free to send over any results. The mixing of household peroxide and vinegar will be a much smaller percentage than anything industrial, but for our readers, we caution against it because any type of fumes could be dangerous to sensitive groups. Sounds like you are taking good precautions though.

[Reply](#)





Ian Paul says

May 16, 2022 at 8:42 pm

https://www.researchgate.net/publication/51995019_Preparation_of_Peracetic_Acid_from_Acetic_Acid_and_Hydrogen_Peroxide_Experimentation_and_Modeling

Here's a great research example from an academic journal for engineering, which is a good demonstration of what concentrations are used industrially and the process required.

Reply



Connie Kline says

July 3, 2022 at 5:09 pm

Can this homemade vinegar solution be use on porcelain tiles? Also, the grout is sealed

Reply



Alexis says

July 4, 2022 at 7:28 am

Yes, it is good for porcelain, but I wouldn't not use it on grout. Even with sealed grout, vinegar should be avoided

Reply

Leave a Reply

Your email address will not be published. Required fields are marked *

Comment *



Name *

Email *

Website

Notify me via e-mail if anyone answers my comment.

Notify me of new posts by email.

POST COMMENT

This site uses Akismet to reduce spam. [Learn how your comment data is processed.](#)

Search...



WELCOME, I'M ALEXIS!

Chemist, rheumatoid arthritis warrior, wife, mom
sharing chemistry secrets for cleaning, skincare,
gardening, health, and more!

MONTHLY NEWSLETTER

EXCLUSIVE RECIPES AND TIPS STRAIGHT TO
YOUR INBOX EACH MONTH!

SUBSCRIBE

RECENT POSTS

[How To Clean Blinds Easily and Quickly](#)

[Pumpkin Based Skincare Products For Bright,
Healthy Skin](#)

[Plant-Based Protein Powder With Probiotics](#)

“

DISCLOSURES

Chemistry Cachet is a participant in the
Amazon Services LLC Associates Program.

[Please read more here.](#)

[Start your NakedPoppy Assessment now](#)



MONTHLY NEWSLETTER

EXCLUSIVE RECIPES AND TIPS STRAIGHT TO YOUR INBOX EACH



MONTH!

STAY IN TOUCH

CATEGORIES

 ▾

ARCHIVES

 ▾

COPYRIGHT ©2022, CHEMISTRY CACHET. ALL RIGHTS RESERVED.

DESIGN BY PIXEL ME DESIGNS

EXCLUSIVE MEMBER OF MEDIAVINE FOOD

