



Reducing Exposures

Recommendations for reducing exposures to toxic chemicals in salons



Salons can be a hazardous place to work given the multiple daily exposures to chemicals of concern. These exposures are especially concerning during the times of COVID-19, as research continues to connect chronic illness -- included those linked to exposures from toxic chemicals -- with increased risk of both contracting, and being harmed by, coronavirus. Fortunately, best practices, including safer and effective disinfectants, using less toxic salon products, improved ventilation, and appropriate protective equipment, can significantly decrease the chance of adverse health impacts of salon work.

In the long term, salon safety is largely a matter of manufacturer responsibility, to create and produce effective salon and cleaning products that do not result in impaired air quality in the salon and adverse health outcomes among workers. Until safer salon products are readily available across the board, these tips and strategies can help protect the health of salon workers and owners.

Tips for Salon Workers

Use less toxic products in the nail salon (when possible) including the following:

- Nail polishes free of dibutyl phthalates, toluene, and formaldehyde
- Nail polish removers free of butyl acetate, methyl acetate, or ethyl acetate
- Nail polish thinners free of toluene or methyl ethyl ketone

Use personal protective equipment on a daily basis:

- Wear neoprene or nitrile gloves to protect the skin on your hands
- Do not reuse disposable gloves
- Where necessary, use respirators with organic carbon chemical cartridges, or N95 respirator dust masks

Use less toxic products in the hair salon (when possible) including the following:

- Hair sprays labeled as "low VOC formulas"
- Pump spray products rather than aerosols (to reduce inhalation risk)
- Hair straighteners free of formaldehyde or methylene glycol

Ensure proper handling, storage, and disposal of salon products:

- Close containers of salon products when not in use
- Place any trash soaked in chemicals in a trash can with a tight lid
- Dispose of hazardous waste appropriately

Tips for Salon Owners

- Ensure adequate ventilation in the salon:

- Open doors and windows when possible.
- Install a ventilation system with external exhaust and ability to make multiple air changes per hour.

- Exhaust particularly sensitizing and irritating exposures away from the salon workers breathing zone.

- Install nail tables with a built-in local exhaust fan.

- Stock less toxic products in the salon (see examples above).

- Consider limiting services performed at the salon to exclude services most commonly causing symptoms in workers or clients.

- Ensure appropriate occupational health and safety training for workers on preventive measures.

- Seek "Green Salon" or "Healthy Salon" certification (where available).



Safer Disinfectants

EPA Certified Disinfectants to be Used Against COVID-19

The majority of the popular disinfectants contain either quaternary ammonium chlorides (quats) or chlorine bleach. Both types of disinfectants are potent against a number of different bacteria and viruses. Unfortunately, they also have some **significant drawbacks and health concerns ranging from chemical burns to reproductive harm.**

However, there are alternative disinfectant chemicals that are as effective (or more) in killing viruses and other germs without these health hazards, such as:

- alcohol/ethanol/isopropanol
- citric acid
- hydrogen peroxide
- thymol
- lactic acid

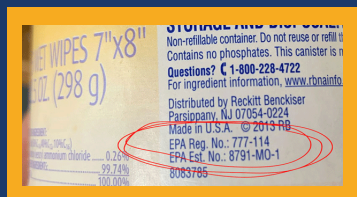
Several products containing these safer disinfectant ingredients have been approved for use against Coronavirus by the U.S. EPA.

To find these products you can use the **EPA List N webtool**; an app that enables people to quickly identify disinfectant products that meet EPA's criteria for use against COVID-19. Search the List N by active ingredient (like hydrogen peroxide) to find safer options.

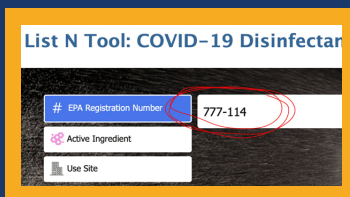
OR **simply reference the table of products in this document**, that are both safer and approved by the EPA to use against Coronavirus.

Want to know more about the safety and effectiveness of a disinfectant? Here's how to search for it using the EPA List N.

1. LOCATE the EPA registration number on the label.



2. GO TO EPA List N [<https://bit.ly/3f04b6T>] click LAUNCH & search by the EPA reg number.



3. REVIEW your results, specifically the "Active Ingredient(s)".

EPA Registration Number	Active Ingredient(s)	Product Name	Company
777-114	Quaternary ammonium	Lysol® Disinfecting Wipes (All Scents)	Reckitt Benckiser LLC

NOTE: In this example, the product's active ingredient is quaternary ammonium (quats), which are linked to health concerns.

Products containing quats should be avoided.

The following table is a list of the safer alternatives from the EPA's "List N" — products approved for use against Coronavirus.

Health & Safety Concerns: Quats and Bleach in Disinfectants



Health Hazards of Quats

Quats are inexpensive and are potent against numerous infectious agents. But there is reason for concern about the use and overuse of quats:

- Quats are potent skin irritants and can cause rashes and dermatitis.
- Quats can irritate your lungs leading to breathing problems.
- Cleaning workers exposed regularly to quats have developed occupational asthma.
- Quats are linked to reproductive harm, potentially affecting fertility, and possibly leading to birth defects.
- Widespread use of quats is contributing to the global problem of antimicrobial resistance, leading to the development of "superbugs" that cannot be controlled with antibiotics.

Health Hazards of Chlorine Bleach

- Chlorine bleach is a significant lung and eye irritant.
- Extended chlorine bleach exposure can cause chemical burns on skin.
- It is the leading cause of chemical eye injuries in children in the U.S. in the category of cleaning products.
- It is also the leading cause of calls to Poison Control for the category of cleaning products, resulting in the greatest number of moderate to severe health outcomes.

References at: <https://bit.ly/saferdisinfecting>

Product Name	Active Ingredient(s)	Company	Contact Time (in mins)	Formulation Type	Use Site	EPA Registration Number*
LEXX™ Liquid Sanitizer and Cleaner Concentrate	Citric acid	ProNatrual Brnds LLC	10	Dilutable	Healthcare; Institutional; Residential	91452-1
CleanCide Wipes	Citric acid	Wexford Labs Inc	5	Towelette	Healthcare; Institutional; Residential	34810-36
CleanCide	Citric acid	Wexford Labs Inc	5	RTU (ready-to-use)	Healthcare; Institutional	34810-35
Comet Disinfecting Bathroom Cleaner	Citric acid	Procter & Gamble	10	RTU	Healthcare; Institutional; Residential	3573-54
Lysol Bathroom Cleaner	Citric acid	Reckitt Benckiser LLC (RB)	5	RTU	Healthcare; Institutional; Residential	675-55
SBT 2 to 1 Concentrate	Citric acid; Thymol	Melaleuca Inc	10	Dilutable	Residential	66251-2
CW32A-RTU	Dodecylbenzene-sulfonic acid; Lactic acid	EcoLab Inc	0.5 (30 secs)	RTU	Healthcare; Institutional; Residential	1677-259
S&S Sanitizer	Dodecylbenzene-sulfonic acid; Lactic acid	EcoLab Inc	0.5 (30 secs)	Dilutable	Healthcare; Institutional; Residential	1677-260
Mitersaw	Ethanol	GOJO Industries Inc	5	Wipe	Institutional; Residential	84150-2
Saginaw	Ethanol	Clorox Professional Products Company	5	RTU	Healthcare; Institutional; Residential	67619-29
PURELL Professional Surface Disinfectant Wipes	Ethanol	GOJO Industries Inc	5	Wipe	Healthcare; Institutional; Residential	84150-1
Urthpro	Ethanol	Urthtech LLC	1	RTU	Healthcare; Institutional; Residential	84368-1
Lysol Neutra Air® 2 in 1	Ethanol	Reckitt Benckiser LLC (RB)	0.5 (30 secs)	RTU	Healthcare; Institutional; Residential	777-136
EasyDECON Part 2	Hydrogen Peroxide	EFT Holdings Inc	10	RTU	Healthcare; Institutional; Residential	74436-2
Oxivir HC Disinfectant Cleaner	Hydrogen Peroxide	Diversey Inc	1	RTU	Healthcare; Institutional	70627-79
Oxivir™ HC Wipes	Hydrogen Peroxide	Diversey Inc	1	RTU	Healthcare; Institutional	70627-80
DS-6640	Hydrogen Peroxide	Lonza LLC	3	RTU	Healthcare; Institutional; Residential	6836-385
DS6809	Hydrogen Peroxide	Lonza LLC	3	Wipe	Healthcare; Institutional; Residential	6836-388
B-Cap™ 35 Antimicrobial Agent	Hydrogen Peroxide	PeroxyChem LLC	Consult user manual	Vapor (use in conjunction with VHP generator)	Institutional	72372-1
Angel	Hydrogen Peroxide	Reckitt Benckiser LLC (RB)	10	RTU	Healthcare; Institutional; Residential	777-126

Product Name	Active Ingredient(s)	Company	Contact Time (in mins)	Formulation Type	Use Site	EPA Registration Number*
D7 Part 2	Hydrogen peroxide	Decon7 Systems LLC	10	Dilutable	Healthcare; Institutional; Residential	89833-4
MDF-200 Part 2	Hydrogen peroxide	Span-World LLC	10	Dilutable	Healthcare; Institutional	91899-2
Vaprox Hydrogen Peroxide Sterilant	Hydrogen peroxide	Steris Corporation	Consult user manual	Vapor (use in conjunction with VHP generator)	Institutional	58779-4
Proxi Home General Disinfectant Cleaner Spray	Hydrogen peroxide	Innovasource LLC	10	RTU	Healthcare; Institutional; Residential	85837-4
HP2O2	Hydrogen peroxide	Midlab	5	Dilutable	Healthcare; Institutional	45745-11
Peroxy HDOX	Hydrogen peroxide	Earth Laboratories Inc	5	Dilutable	Healthcare; Institutional	84198-1
Binary Ionization Technology (BIT) Solution	Hydrogen peroxide	Tomi Environmental Solutions Inc	15	Fog; Mist	Healthcare; Institutional; Residential	90150-2
Oxy-1 Wipes	Hydrogen peroxide	Virox Technologies Inc	0.5 (30 secs)	Wipe	Healthcare; Institutional; Residential	74559-10
Accel TB	Hydrogen peroxide	Virox Technologies Inc	1	RTU	Healthcare; Institutional; Residential	74559-1
Oxy-1 RTU	Hydrogen peroxide	Virox Technologies Inc	0.5 (30 secs)	RTU	Healthcare; Institutional; Residential	74559-9
Accel TB Wipes	Hydrogen peroxide	Virox Technologies Inc	1	Wipe	Healthcare; Institutional; Residential	74559-3
Accel (Concentrate) Disinfectant Cleaner	Hydrogen peroxide	Virox Technologies Inc	5	Dilutable	Healthcare; Institutional; Residential	74559-4
Peroxide Multi Surface Cleaner and Disinfectant	Hydrogen peroxide	EcoLab Inc	2	Dilutable	Healthcare; Institutional	1677-238
Clorox Pet Solutions Advanced Formula Disinfecting Stain & Odor Remover	Hydrogen Peroxide	The Clorox Company	5	RTU	Healthcare; Institutional; Residential	5813-110
Clorox Commercial Solutions® Hydrogen Peroxide Cleaner Disinfectant	Hydrogen Peroxide	Clorox Professional Products	1	RTU	Healthcare; Institutional	67619-24
Clorox Commercial Solutions® Hydrogen Peroxide Cleaner Disinfectant Wipes	Hydrogen Peroxide	Clorox Professional Products	2	Wipe	Healthcare; Institutional; Residential	67619-25
Clorox Commercial Solutions® Clorox® Disinfecting Biostain & Odor Remover	Hydrogen Peroxide	Clorox Professional Products	5	RTU	Healthcare; Institutional; Residential	67619-33
Oxivir Tb	Hydrogen Peroxide	Diversey Inc	1	RTU	Healthcare; Institutional	70627-56
Oxy-Team™ Disinfectant Cleaner	Hydrogen Peroxide	Diversey Inc	5	Dilutable	Healthcare; Institutional	70627-58

Product Name	Active Ingredient(s)	Company	Contact Time (in mins)	Formulation Type	Use Site	EPA Registration Number*
Oxivir™ Wipes	Hydrogen Peroxide	Diversey Inc	1	Wipe	Healthcare; Institutional; Residential	70627-60
Oxivir 1	Hydrogen peroxide	Diversey Inc	1	RTU	Healthcare; Institutional	70627-74
Oxivir 1 Wipes	Hydrogen peroxide	Diversey Inc	1	Wipe	Healthcare; Institutional	70627-77
Peroxide Disinfectant And Glass Cleaner Rtu	Hydrogen peroxide	Ecolab Inc	.75 (45 secs)	RTU	Healthcare; Institutional	1677-251
Sani-HyPerCide Germicidal Spray	Hydrogen peroxide	Professional Disposables International Inc	1	RTU	Healthcare; Institutional	9480-14
Phato 1:64 Disinfectant Cleaner	Hydrogen peroxide	Diversey Inc	5	Dilutable	Healthcare; Institutional	70627-62
Suretough	Hydrogen peroxide	Diversey Inc	5	RTU	Healthcare; Institutional	70627-78
Oxy-res (Concentrate)	Hydrogen peroxide	Virox Technologies Inc	5	Dilutable	Healthcare; Institutional; Residential	74559-6
Accel 5 RTU	Hydrogen peroxide	Virox Technologies Inc	5	RTU	Healthcare; Institutional; Residential	74559-8
Nathan 2	Hydrogen peroxide	S.C. Johnson Professional	5	RTU	Healthcare; Institutional; Residential	89900-1
Klercide 70/30 IPA	Isopropanol	EcoLab Inc	5	RTU	Healthcare; Institutional	1677-249
Windex Disinfectant Cleaner	L-Lactic Acid	S.C. Johnson & Son Inc	5	RTU	Healthcare; Residential	4822-593
Sani-Cide EX3 (10X) RTU	L-Lactic Acid	Celeste Industries Corp	10	RTU	Institutional	42048-4
Fangio	L-Lactic Acid	S.C. Johnson & Son Inc	10	RTU	Institutional; Residential	4822-606
Gurney	L-Lactic Acid	S.C. Johnson & Son Inc	5	RTU	Institutional; Residential	4822-608
WC Complete	Lactic Acid	Combat Insect Control Systems	0.5 (30 secs)	RTU	Healthcare; Institutional; Residential	64240-65
Benefect Botanical Daily Cleaner Disinfectant Spray	Thymol	Cleanwell LLC	10	RTU	Healthcare; Institutional; Residential	84683-3
Benefect Botanical Daily Cleaner Disinfectant Towelette	Thymol	Cleanwell LLC	10	Wipe	Healthcare; Institutional; Residential	84683-4
Thymox Disinfectant Spray	Thymol	Laboratorie M2	4	RTU	Healthcare; Institutional; Residential	87742-1
Ready to Use Thymol	Thymol	Wexford Labs Inc	10	RTU	Healthcare; Institutional; Residential	34810-25

*Note: There may be more than one product name associated with an EPA registration number. Every disinfectant product label will include its EPA registration number – if the number on your product matches one on this list, the product is certified by EPA to be effective against COVID-19.