



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

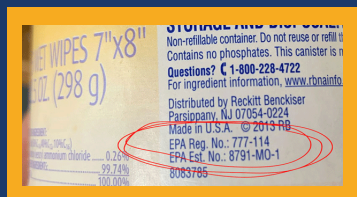
Several products containing these safer disinfectant ingredients have been approved for use against Coronavirus by the U.S. EPA.

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.

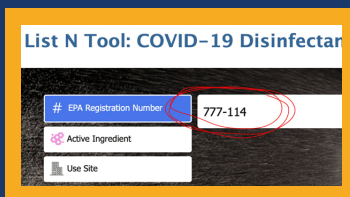
OR **simply reference the table of products in this document**, that are both safer and approved by the EPA to use against Coronavirus.

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>

The lists below are from the San Francisco Department of the Environment (SFE) and show disinfectants that contain safer active ingredients and are approved by US EPA for COVID-19. The list also notes SFE screened products and products that are included in the US EPA's Design for the Environment (DfE) program. **For DfE products, all ingredients (not just "active" ingredients) are considered least hazardous.**

List of Safer Disinfectants: Residential & Small Business Use

DfE	SFE	Product Name	Contact Time (in minutes)	EPA Registration Number*
YES	YES	ECOS One-step Disinfectant Cleaner	5	34810-35
YES	YES	Lemi Shine Disinfecting Wipes	3	34810-37
YES	YES	Lysol Multi-Purpose Cleaner with Hydrogen Peroxide Lysol Cleaner (Citrus)	10	777-126
	YES	Arm & Hammer Essentials Disinfecting Wipes	5	95337-1
	YES	Beaumont's Citrus Magic Multi-Purpose Disinfectant Cleaner	10	85873-4
	YES	Bona PowerPlus Antibacterial Surface Cleaner	10	85873-4
	YES	Bona PowerPlus Hard Surface Floor Cleaner (Antibacterial Formula)	10	84683-4
	YES	Boulder Clean	10	34810-35
	YES	Cleanwell Botanical Disinfecting Wipes	10	84683-4
	YES	CRC Multi-Surface Disinfecting Cleaner	10	85837-4
	YES	Honest Disinfecting Spray	10	85837-4
	YES	Katzkin Md Multi-Surface Disinfectant	10	35810-25
	YES	Manduka Botanical Disinfecting Cleaner	10	35810-25
	YES	Method Antibac All-Purpose Cleaner	10	75277-2
	YES	Quick Shine Disinfectant Floor Cleaner	10	85837-4
	YES	SC Johnson Windex Multi-Surface Disinfectant Sanitizer Cleaner	10	4822-593
	YES	Seventh Generation Disinfecting Bathroom Cleaner Lemongrass Citrus Scent	10	84683-3
	YES	Seventh Generation Disinfecting Multi-Surface Cleaner	10	84683-3
		Bona PowerPlus Antibacterial Hard-Surface Floor Cleaner	10	91861-2
		Clorox 4 in One Disinfecting Spray	5	67619-29
		Clorox Fabric Sanitizer	0	5813-110
		Clorox Fabric Sanitizer1 (aerosol)	5	67619-29
		CloroxPro Disinfecting Bio Stain & Odor Remover	0	67619-33
		Clorox Pro 4 in One Disinfectant & Sanitizer, Lavender	5	67619-29
		Grove Co. All-Purpose Disinfectant Cleaner	10	85837-4

DfE	SFE	Product Name	Contact Time (in minutes)	EPA Registration Number*
		Lysol Foaming Bathroom Cleaner Mango & Hibiscus Scent	5	675-55
		Lysol Neutra Air 2-in-1 Tropical Breeze	0	777-136
		Smitty's Sea-wash All-Purpose Disinfectant Cleaner	10	85837-4
		Zep Ready-to-Use Peroxide Disinfectant	1	6836-385

List of Safer Disinfectants: Custodial & Large Institutions

DfE	SFE	Product Name	Contact Time (in minutes)	EPA Registration Number*
YES	YES	Contact Citric Acid Disinfectant	3	34810-37
YES	YES	Diversey Accel 5 RTU	5	74559-8
YES	YES	ECOS Multi-Purpose Disinfectant Wipes, fresh citrus	3	34810-37
YES	YES	ECOS Pro Multi-Purpose Disinfectant & Sanitizer, fresh citrus	5	34810-35
YES	YES	Purell Food Service Surface Sanitizer	0	84368-1
YES	YES	Purell Healthcare Surface Disinfectant	0	84368-1
YES	YES	Purell Professional Surface Disinfectant	0	84368-1
YES	YES	Wexford Cleanside RTU	3	34810-37
	YES	Benefect Botanical Decon 30 Disinfectant	5	84683-3
	YES	Benefect Botanical Disinfectant	10	84683-1
	YES	Benefect Botanical Disinfectant Wipes	10	84683-4
	YES	Clorox Commercial Solutions 4 in One Disinfectant & Sanitizer	5	67619-29
	YES	Clorox Commercial Solutions Hydrogen Peroxide Disinfecting Wipes	0	67619-25
	YES	Clorox Healthcare Citrace Hospital Disinfectant & Deodorizer	5	67619-29
	YES	Clorox Healthcare Hydrogen Peroxide Disinfectant Wipes	0	67619-25
	YES	Clorox Healthcare Hydrogen Peroxide Disinfectant Cleaner	0	67619-24
	YES	Clorox Hydrogen Peroxide Disinfectant Cleaner	0	67619-24
	YES	Diversey Oxivir 1	1	70627-74
	YES	Diversey Oxivir 1 Wipes	1	70627-77
	YES	Diversey Oxivir Tb	1	70627-56
	YES	Diversey Oxivir Tb Wipes	1	70627-60

DfE	SfE	Product Name	Contact Time (in minutes)	EPA Registration Number*
	YES	Ecolab Peroxide Disinfectant & Glass Cleaner RTU	0	1677-251
	YES	Ecolab Peroxide Multi Surface Cleaner and Disinfectant (Concentrate)	0	1677-238
	YES	Ecolab Sink & Surface Cleaner Sanitizer	0	1677-260
	YES	Hillyard Citrus Disinfectant	3	34810-37
	YES	Midlab Bright Solutions Hb202	1	45745-11
	YES	Midlab Maxim Facility +	1	45745-11
	YES	Procter & Gamble Comet Disinfecting-Sanitizing Bathroom Cleaner	10	3573-54
	YES	Prorstore Botaniclean	10	34810-25
	YES	Scott 24 Hour Sanitizing Wipes	6	9402-17
	YES	Seventh Generation Professional Disinfectant Spray	10	84683-3
	YES	Seventh Generation Professional Disinfecting Bathroom Cleaner	10	84683-3
	YES	Seventh Generation Professional Disinfecting Kitchen Cleaner	10	84683-3
	YES	Us Chemical Shurguard HP	5	70627-62
	YES	Us Chemical Shurguard HP RTU	1	70627-56
	YES	Victory Bay Peroxide Disinfectant Cleaner	1	45745-11
	YES	Virox Technologies / Contec Preempt Wipes	1	74559-3
	YES	Waxie Edc 70 Hp Disinfectant Cleaner	1	45745-11
	YES	Waxie Hp Disinfectant Cleaner	1	45745-11
	YES	Waxie Solsta 730 Hp Disinfectant Cleaner	1	45745-11
	YES	Wexford Home Everyday Cleaner	10	34810-25
		Bioesque Botanical Disinfectant Solution	1	87742-1
		Clorox Commercial Solutions Disinfecting Bio Stain & Odor Remover	0	67619-33
		CloroxPro Disinfecting Bio Stain & Odor Remover, Spray	0	67619-33
		Curis CUroxide	30	93324-1
		Diamond Shine Disinfectant 360	10	85837-4
		Diversey Oxivir Five 16 Concentrate	5	70627-58
		Echem Hyper Disinfectant RTU	1	6836-385
		Ecolab Virasept	4	1677-226
		Keystone/Sysco/Ecolab Surface Cleaner Sanitizer RTU	0	1677-259
		KicTeam Disantech	3	34810-37

DfE	SfE	Product Name	Contact Time (in minutes)	EPA Registration Number*
		KicTeam Disantech Wipes	5	34810-36
		Neogen Companion Disinfectant Wipes	5	34810-36
		PDI Sani-Hypercide Germicidal Spray	1	9480-14
		Peroxigard Concentrate One Step Disinfectant Cleaner & Deodorizer For Use in Life Sciences	5	74559-4
		Pronatural LEXX Disinfectant & Cleaning Solution	10	91452-1
		Purworld Ready-to-Use Fresch	10	34810-25
		SC Johnson Professional Windex Multi-Surface Disinfectant Sanitizer Cleaner	5	4822-592
		Scican Optim Tb	1	74559-1
		Scican Optim Tb Wipes	1	74559-3
		Sono Hydrogen Peroxide Disinfectant	1	6836-385
		Vapor Fresh Disinfecting Gym Wipes	5	34810-36
		Virox Animal Health Rescue Concentrate One Step Disinfectant Cleaner & Deodorizer	5	74559-4
		Virox Technologies / Contec Preempt Concentrate	5	74559-4
		Virox Technologies / Contec Preempt RTU	1	74559-1
		Virox Technologies Intervention Farm Animal Care Disinfectant Cleaner & Deodorizer	5	74559-4
		Virox Technologies Rejuvenate Concentrate One-Step Disinfectant Cleaner for Use in Spas, Salons And Clinics	5	74559-4
		Virox Technologies Rejuvenate Concentrate Ready to Use Disinfectant Cleaner for Use in Spas, Salons And Clinics	1	74559-1
		Virox Technologies Rejuvenate Concentrate Ready to Use Wipes One-Step Disinfectant Cleaner for Use in Spas, Salons And Clinics	1	74559-3

*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.