

Formaldehyde Hazards in Nail Salons

WORKER HEALTH & SAFETY



How can I be exposed to formaldehyde at work?

Exposure can occur while using nail enamels and hardeners that contain formaldehyde. Workers may inhale harmful vapors or get the product on their skin or in their eyes. Many workers in nail salons also work long hours, which can add to the amount of time they are exposed to chemicals that are used every day. The best way to decrease exposure is through increasing ventilation. Refer to OSHA's [**Steps to Prevent Exposures and Protect Workers Health**](#).



What are the health risks?

Studies in humans and animals show that breathing formaldehyde at certain levels can lead to or worsen asthma, cause eye and nose irritation, and result in allergic reactions. Even fairly low concentrations of formaldehyde can result in rapid onset of nose and throat irritation, causing cough, chest pain, shortness of breath, and wheezing. Higher exposures can cause swelling of the throat, along with lung inflammation, and fluid in the lungs.

People can smell formaldehyde at very low levels (as low as 0.5-1 part per million (ppm)). In addition, people who are used to the odor and can become sensitized to it may not be aware of the hazards of formaldehyde exposure. Breathing high amounts of formaldehyde in medical and other workplaces has been linked to some types of cancers including leukemia and cancers of the nasopharynx and sinuses.

In December 2024, EPA released the final [**Risk Evaluation of Formaldehyde**](#) with updated health risks due to long-term exposure.



Where do you look for hazardous ingredients on products?

Read the label on the product bottle or box and the product's safety data sheet (SDS), including those labeled as "free" of hazardous chemicals. Formaldehyde might be listed as methylene glycol, formalin, methylene oxide, paraform, formic aldehyde, methanal, oxomethane, oxymethylene, or CAS Number 50-00-0.

OSHA's [**Formaldehyde Standard 1910.1048**](#) requires manufacturers of products that contain or [**release formaldehyde**](#) to include information about formaldehyde and its hazards on the label and in the SDS. Formaldehyde must be listed if it is in the product at 0.1% or more (as a gas or in solution) or if the product releases formaldehyde above 0.1 ppm of air.



Protecting Workers

If salon owners use products that may contain or release formaldehyde, they **must comply** with the following OSHA standards:

OSHA Formaldehyde Standard 1910.1048

OSHA Hazard Communication Standard 1910.1200

Salon owners **MUST**:

- **Test** air in salon during product use to determine worker exposure and notify staff. You can get help with this process through OSHA's free **On-Site Consultation Program**.
- Provide appropriate **personal protective equipment (PPE)** such as eye protection and appropriate disposable gloves (i.e., nitrile, latex, or vinyl depending on chemical).
- Provide eye and skin washing equipment to remove chemicals such as formaldehyde products that splashed onto a worker.
- **Train** staff on how to read the information on a product's label and SDS, health effects of formaldehyde, how to properly wear PPE, clean spills, and how to properly dispose of products.
- Prepare a written **hazard communication** program.
- Make sure **proper medical attention** is offered to workers who develop signs or symptoms of exposure or are exposed to large amounts (i.e., a spill) of formaldehyde.



For more detailed information refer to:
[OSHA Health Hazard in Nail Salons: Standards](#)

What Salon Owners **Must Do** If Formaldehyde Levels Detected

If above the action level of 0.5 ppm of air during eight-hour work shift or 2 ppm during a 15-minute period.

- Provide appropriate medical attention.
- Keep exposed workers informed of precautions being taken to lower their exposure.
- Test the air periodically to make sure levels below OSHA limits.
 - Must test every 6 months if levels are at or above 0.5 ppm.
 - Must test every 12 months if levels are at or above 2 ppm.

If levels above OSHA's permissible exposure limit of 0.75 ppm of air during eight-hour work shift or 2 ppm during a 15-minute period.

- Install and maintain ventilation systems where products mixed/used.
- Make sure appropriate PPE is used.
- Provide respirators if previous methods did not reduce levels. N95s or half-facepiece elastomeric respirators with cartridges may be used. Provide training on use and follow respirator requirements under [OSHA 29 CFR 1910.134](#).
- Post warning signs formaldehyde is present above OSHA limits and restrict access to authorized personnel.

Additional Resources: linktr.ee/NJNailSalonSafety

- [ATSDR: Formaldehyde - ToxFAQs™](#)
- [OSHA: Formaldehyde Factsheet](#)
- [OSHA: Health Hazards in Nail Salons](#)
- [OSHA: Stay Healthy and Safe While Giving Manicures and Pedicures](#)
- [NIOSH: Nail Technicians: Workplace Safety and Health](#)
- [EPA: Protecting the Health of Nail Salon Workers](#)
- [NJDOH Right To Know Hazardous Substance Fact Sheets](#)